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DEMOGRAPHY AND FAMILY WELFARE

Author:
Dr.P.Veeramani, Assistant Professor, Department of Womes Studies, Alagappa University, Karaikudi

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Structure

1.1 INTRODUCTION

Demography is the social science that studies 1) the size, composition, and distribution of the human population of a given area at a specific point in time; 2) changes in population size and composition; 3) the components of these changes (fertility, mortality, and migration); 4) the factors that affect these components; and 5) the consequences of changes in popula- tion size, composition, and distribution, or in the components themselves. Demography may be defined as the scientific study of the size, composition, and distribution of human populations and their changes resulting from fer- tility, mortality, and migration. Demography is concerned with how large (or small) populations are; how populations are composed according to age, sex, race, marital status, and other characteristics; and how popula- tions are distributed in physical space (e.g., how urban and rural they are) (Bogue, 1969). Demography is also interested in the changes over time in the size, composition, and distribution of human populations, and how these result from the processes of fertility, mortality, and migration. The chapters of this book discuss these topics in more depth and provide you with a more detailed introduction to demography.

1.2 OBJECTIVES

After studying this chapter you will understand

The nature and scope of demography

The historical back ground of demography

The relationship between demography and other sciences

1.3 . Meaning and concept of demography

Demography is the study of human populations – their size, composition and distribution across space – and the process through which populations change. Births, deaths and migration are the 'big three' of demography, jointly producing population stability or change.

For demographers, a population is a group of individuals that coexist at a point in time and share a defining characteristic such as residence in the same geographical area. The structure or composition of a population refers to the distribution of its members by age, sex, and other characteristics, such as place of residence and marital or health status. The age and sex structure of a population results from past trends in fertility, mortality, and migration. Thus, these processes comprise the components of demographic change. The age and sex structure of a population, in turn, affects birth rates, death rates, and rates of migration. Changes in status such as getting married or divorced interact with population structure in a similar way.

Some authorities reserve the term demography for the mathematical and statistical study of the interrelationships between population size and structure and the components of demographic change. According to this terminology, demography can be contrasted with population studies, which investigate the determinants and consequences of demographic phenomena drawing on the concepts and theories of disciplines such as the social sciences, health sciences, and history. Others encompass population studies within demography and use the term formal demography to distinguish the statistical core of the discipline. Demography (according to this wider definition) is a multidisciplinary field: sub disciplines such as economic demography, historical demography, anthropological demography, and mathematical demography exist. They differ not only in their subject of study but also in their theoretical orientation and methods.

The term demography has been ascribed to a Belgian statistician, Achille Guillard, who coined it in 1855. However, the origins of modern demography are usually traced back to John Graunt's quantitative analyses of the "Bills of Mortality" published in 1662 [5]. The "Bills of Mortality" provided weekly lists of burials and baptisms in the parishes of London. Graunt used these data to examine the sex ratio at birth and to estimate the population of London. He showed that more deaths than births occurred.

in London, implying that the growth of the capital was due to in-migration from the countryside. He also estimated the proportion of births surviving to a range of ages, thereby developing the basic concept of the life table. Graunt's research prefigures modern applications of demographic science: information on fertility and mortality and population estimates for small areas (see Small Area Estimation) remain the fundamental results of demographic analysis required by those engaged in policy formulation and planning.

1.4 DEFINITIONS OF DEMOGRAPHY

The term demography has been defined both in a narrow and broad sense.The Oxford Dictionary of Economics defines demography as "The study of the characteristics of human populations." According to the UN Multilingual Demographic Dictionary, "Demography is the scientific

study of human populations, primarily with respect to their size, their structure and their development." To Barckley, "The numerical portrayal of human population is known as demography." Similarly, according to Thomson and Lewis, "The population student is interested in population's size, composition and distribution; and in changes in these aspects through time and causes of these changes."

All these definitions take a narrow view because they emphasise only the quantitative aspects of demography. Some other writers have defined demography in wide sense by taking the quantitative and qualitative aspects of population studies.

In this context, according to Hauser and Duncan, "Demography is the study of size, territorial distribution and composition of population, changes therein, and the components of such changes, which may be identified as natality, mortality, territorial movement (migration), and social mobility (change of status)." According to Frank Lorimer, "In broad sense, demography includes both demographic analysis and population studies. A broad study of demography studies both qualitative and quantitative aspects of population."

Thus, according to Donald J. Bougue, "Demography is a statistical and mathematical study of the size, composition, spatial distribution of human population, and of changes overtime in these aspects through the operation of the five processes of fertility, mortality, marriage, migration and social mobility. Although it maintains a continuous descriptive and comparative analysis of trends, in each of these processes and in its net result, its long run goal is to develop a body of theory to explain the events that it charts and compares. "

These broad definitions take into view not only the size, composition and distribution of population and changes in them in the long run but also imply human migration and change in the status of population through education, employment, social status, etc.

1.5 Historical back ground of Demography

Demographic thoughts traced back to antiquity, and were present in many civilisations and cultures, like Ancient Greece, Ancient Rome, China and India. Demography is made up of two word Demos and Graphy . The term Demography refers to the overall study of population.

In ancient Greece, this can be found in the writings of Herodotus, Thucidides, Hippocrates, Epicurus, Protagoras, Polus, Plato and Aristotle. In Rome, writers and philosophers like Cicero, Seneca, Pliny the elder, Marcus Aurelius, Epictetus, Cato, and Columella also expressed important ideas on this ground.

In the Middle ages, Christian thinkers devoted much time in refuting the Classical ideas on demography. Important contributors to the field were William of Conches, Bartholomew of Lucca, William of Auvergne, William of Pagula and Muslim sociologists like Ibn Khaldun.

One of the earliest demographic studies in the modern period was Natural and Political Observations Made upon the Bills of Mortality (1662) by John Graunt, which contains a primitive form of life table. Among the study's findings were that one third of the children in London died before their sixteenth birthday. Mathematicians, such as Edmond Halley, developed the life table as the basis for life insurance mathematics. Richard Price was credited with the first textbook on life contingencies published in 1771, followed later by Augustus de Morgan, 'On the Application of Probabilities to Life Contingencies' (1838).

In 1755, Benjamin Franklin published his essay Observations Concerning the Increase of Mankind, Peopling of Countries, etc., projecting exponential growth in British colonies. His work influenced Thomas Robert Malthus, who, writing at the end of the 18th century, feared that, if unchecked, population growth would tend to outstrip growth in food production, leading to ever-increasing famine and poverty (see Malthusian catastrophe). Malthus is seen as the intellectual father of ideas of overpopulation and the limits to growth. Later, more sophisticated and realistic models were presented by Benjamin Gompertz and Verhulst.

In 1855, a Belgian scholar Achille Guillard defined demography as the natural and social history of human species or the mathematical knowledge of populations, of their general changes, and of their physical, civil, intellectual and moral condition.

The period 1860-1910 can be characterised as a period of transition wherein demography emerged from statistics as a separate field of interest. This period included a panoply of international 'great demographers' like Adolphe Quételet (1796–1874), William Farr (1807–1883), Louis-Adolphe Bertillon (1821–1883) and his son Jacques (1851–1922), Joseph Körösi (1844–1906), Anders Nicolas Kaier (1838–1919), Richard Böckh (1824–1907), Émile Durkheim (1858-1917), Wilhelm Lexis (1837–1914), and Luigi Bodio (1840–1920) contributed to the development of demography and to the toolkit of methods and techniques of demographic analysis.

1.6 Why study Demography

The study of demography is important for a number of reasons. For starters, nearly everything is connected to demography (Weeks, 2008). Demography describes our world—and description is the starting point for understanding the world and, ultimately, taking action to improve it. "Our world" could be any collection of people we choose to analyze—a social group, classroom, neighborhood, city, or the total world population for that matter.

The relevance of demography for an understanding of the world is reflected in the major issues making headlines in recent years:

- Increasing income inequality as the size of the middle class dwindles
- Conflict between different ethnic and religious factions in the Middle East
- The effects of climate change on various parts of the world
- The continuing issue of illegal immigration into the United States
- The unexpected election of Donald Trump as president of the United States.
- These issues all have national and/or international implications—

and all are directly or indirectly related to demography. In fact, there is virtually no social, economic or political issue that does not have its roots in the demographics of the population.

- While the events above have captured the headlines, there are a number of other trends occurring within the U.S. population that are currently making headlines or reflect long-term changes in the social structure:

- The decline in the U.S. population below replacement levels
- The aging of the U.S. population (accompanied by growing "feminization")
- The increasing racial/ethnic diversity of the U.S. population
- The changing family structure of the U.S. population (now including same-sex marriages)
- The outsourcing of U.S. jobs to overseas workers

Increasing death rates among some segments of the U.S. population

These types of demographic trends have significant implications for U.S. society present and future. There is no social institution that is not impacted by these developments. The aging of the U.S. population by itself has ushered in an unprecedented period for a society that has always emphasized its youthfulness. The dramatic increase in the Hispanic population in the U.S. has wide-ranging implications for the economy, education, healthcare and the political system.

In view of developments like those above applied demography seeks to interpret the political and economic events whether at the local, national or international level. News headlines and the stories that accompany them are often complicated and difficult to decipher. However, many if not most news stories today have some type of demographic cause or consequence. We gain insights when we realize that headlines like: "Growing elderly population puts pressure on Medicare," "Aging baby-boomers threaten solvency of Social Security," or "Drop in birthrate could lead to population decline" reflect the operation of demographic processes. We can better understand both the obvious and not-so-obvious dimensions of the issue if we can apply demographic knowledge and techniques.

A case in point that has implications for each of these headlines is the oft-quoted misstatement that: Americans are living longer today. That statement is incorrect in that the length of time that a human being can live has not changed much throughout history. A more correct statement would be: More Americans are living long lives. While both of these developments would have an impact on programs for the elderly, the ultimate consequences of the respective developments would be different. The impact on society of aging is a function of many people living a long time rather than some people living a very long time.

While a good case can be made for the usefulness of applied demography as a means of interpreting and understanding social phenomena, the ultimate goal of any applied science is to effect change. Knowledge gained through the application of demographic concepts, techniques and data has some value in its own right, but the real payoff comes when this knowledge is used to solve a social problem and bring about positive change. In the cases of Medicare and Social Security cited above, demographic knowledge can offer insights into the issues at hand. For example,

does the growing Medicare population mean that this government

program will eventually go bankrupt as the trend line might suggest? Knowledge drawn from health demography helps to shed some light on this as we realize that the major surge in Medicare enrollees for the foreseeable future will be baby-boomers. This generation is healthier than any previous generation of seniors, has more resources to maintain their health status longer, and can generally expect to remain healthy up into their 70 and 80s. While this doesn't mean that the surge in elderly Americans will not eventually affect Medicare's viability, the situation viewed in this light does not support a "doomsday" scenario.

While a number of major trends related to demographics are affecting the society as a whole, there is a personal dimension to this as well. As Weeks (2008) points out, the demographic foundation of our lives is deep and broad. Although demographers are interested in the characteristics and behavior of groups of people, the demographic attributes of our society affect nearly every aspect of our personal lives in one way or another. In fact, the types of personal decisions that we as individuals make have a cumulative effect on population trends. Some of the decisions that affect our daily lives are:

- The decision to get married (or not) and when
- The decision to have children (or not) and when
- The neighborhood in which we choose to live
- The type of occupation we pursue
- The educational level we aspire to
- The choice of political party to support
- The health-related behaviors in which we participate.

The cumulative effect of decisions such as these made by millions of Americans is a changing demographic profile. In fact, some demographers make a living projecting the future characteristics of populations based on what is known about that population's current demographic behavior. It would not be unusual, for example, for analysts to use demographic methods to predict how long members of a certain demographic group are going to live and, in fact, determine prospectively what diseases they are likely to die from, or for demographers to predict election results based on the demographic characteristics of likely voters. The bottom line is: Knowing the demographic characteristics of a population opens the door to an understanding of a wide variety of attributes of that population.

1.7 WHO USES DEMOGRAPHY?

People in every aspect of society employ demographic data, often without being aware of it. Increasingly we hear people speak up the "demographics" of that consumer group or the fact that a certain "demographic" always votes for a certain political party. Even though public expressions about demographics are becoming more common, the widespread use of demographic data and methods is not widely appreciated.

Members of the business community, particularly those involved in marketing, pioneered the use of demographic data in the private sector. The application of demographics to business has become so widespread that virtually no business decision is made in the corporate boardroom today without considering the relevant demographics. Whether the decision involves identifying a target audience for a new product, determining the location for a new store, or designing a sales territory, the demographics of the population under question are a

critical piece of the puzzle. This process does not just relate to major corporate decisions but affects us as individuals. The fact that we receive certain catalogues, certain types of junk mail, or certain telephone solicitations reflects the information that marketers have about our demographic attributes.

While the business community was the first to recognize the importance of demographics, this sector is far from the only user of such data. In every aspect of American life demographics have become increasingly important. The allocation of government services depends on an in-depth understanding of the characteristics of the population to be served. Indeed, the original intent of the census conducted by the federal government every ten years was for the appor- tionment of Congressional districts. Those who aspire to political office begin their campaigns with an assessment of the demographics of their prospective con- stituents. Those involved in urban planning and community development start with the demographics of the geographic area under consideration. The education system depends on an understanding of the number, location and characteristics of school-aged children, and the services provided by the healthcare system are a direct reflection of the characteristics of the patient population. The military must plan to accommodate the characteristics of potential inductees, and, clearly, today's American armed forces reflect the changing demographic character of our society with the inclusion of record numbers of women and members of various racial and ethnic groups.

In most of these examples, demographics are put to good use—good for the users and good for society. But there are cases where less well-intended individuals and organizations may use demographics for less than noble purposes. Much has been made of racial and ethnic profiling used by law enforcement agencies and championed by those who oppose immigration into this country. Certain groups may be discriminated against due to their demographic characteristics—their race or ethnicity, their poverty level, religion or language. Historically, individuals have been excluded from housing developments, social clubs and occupations due to their sex, race or cultural background. As with any aspect of the human condition, demographics can be used for good or ill.

When we examine *who* applies demography to real-world problems we find, not surprisingly, that many demographers themselves are included among this number. Applied demographers work in virtually every industry, from education to manu- facturing to healthcare and at agencies in all levels of government. However, it is noteworthy that most of the people applying demography to concrete problems are *not* demographers. Long before applied demography was recognized as a separate discipline, people in government, business and other fields were regularly using demographics as part of their jobs. It is perhaps a testament to the value of applied demography to find people who are not demographers in virtually every industry employing demographics in their efforts to perform their jobs.

The significance of demography to U.S. industry can be seen in the extent to which those involved in the application of demography have been elevated to roles of importance within the corporate structure. While demographic analysis was at one time relegated to the back room as a low-level technical activity, in today's economy we find those in charge of demographic analysis—albeit usually not

demographers per se—seated at the table in the corporate boardroom. It is safe to say that very few business decisions in any industry are made today without con- sidering the demographics underlying the issues and/or the demographic implica- tions of that decision.

1.8 Scope of Demography

Scope and Subject Matter of Demography:

The scope of demography is very wide. It includes the subject matter of demography, is it a micro or macro study? Whether it is a science or art? These are vexed questions about the scope of demography about which there is no unanimity among writers on demography. The subject matter of demography has become very vast in recent years.

The study of demography encompasses the following:

a. **Size and Shape of Population**:

Generally, the size of population means the total number of persons usually residing in a definite area at a definite time. The size and shape of population of any region, state or nation are changeable. It is because every country has its own unique customs, specialities, social-economic conditions, cultural atmosphere, moral values, and different standards for acceptance of artificial means of family planning and availability of health facilities, etc.

All these factors affect the size and shape of the population and if these factors are studied with reference to any area under demography, we can clearly understand the role they play in determining the shape and size of the population.

b. Aspects Related to Birth Rate and Death Rate:

Birth rate and death rate are the decisive factors that influence the size and shape of the population and therefore their importance in population studies is crucial. In addition to these, factors like marriage rate, belief regarding social status and marriage, age of marriage, orthodox customs related to marriage, early marriage and its effects on the health of the mother and the child, child infanticide rate, maternal death, still birth, resistance power, level of medical services, availability of nutritious food, purchasing power of the people, etc. also affect the birth and death rate.

c. Composition and Density of Population:

In the subject matter of demography, the study of composition and density of population is important. In the composition of population factors like the sex ratio, race wise and age- group wise size of population, the ratio of rural and urban population, distribution of population according to religion and language, occupational distribution of population, agricultural and industrial structure and per sq. km. density of population are very important.

1.Socio-Economic Problems:

Out of the many problems relating to population growth, the effects of high density due to industrialization in the urban areas are of more importance as they affect the socio-economic life of the people. Problems like slum areas, polluted air and water, crime, addiction to

liquor, juvenile delinquency, and prostitution, are also important subjects of study in demography.

Quantitative and Qualitative Aspects: Along with the quantitative problems of population, the qualitative problems also form part of population studies. Moreover, the study of demography includes the availability of physicians in the total population, number of hospitals, the number of beds in hospitals, expectation of life at birth, daily availability of minimum calories, resistance power, advertisement of family planning programme and its development, the changes brought in the attitudes of people regarding child birth and adequate medical facility for delivery, etc.

2. Distribution of Population:

Population studies include the following:

(a) How people are distributed among and within continents, world regions and developed and underdeveloped countries?

(b) How their numbers and proportions change?

(c) What political, social and economic causes bring changes in the distribution of population. Within a country, it also includes the study of distribution of population in rural and urban areas, fanning and non-farming communities, working classes, business communities, etc.

Migration plays an important role in the distribution of population and supply of labour. Demography studies the factors that lead to internal and external migration of people within a country and between countries, the effects of migration on the migrants and the place where they migrate.

Urbanisation is another factor in the distribution of population within the country. The focus in population studies is on factors responsible for urbanisation, the problems associated with urbanisation and the solutions thereto.

Similarly, theories of migration and urbanisation form part of the study of demography.

3. Theoretical Models:

There are vast theoretical aspects of population studies which include the various theories of population propounded by sociologists, biologists, demographers and economists, and theories of migration and urbanisation.

4. Practical Aspects:

Practical aspects of population studies relate to the various methods of measuring population changes such as the census methods, age pyramids, population projections, etc.

5. Population Policy:

Population policy is an important subject of demography especially in the context of developing countries. It includes policies for population control, and family planning strategies; reproductive health, maternal nutrition and child health policies; policies for

human development of different social groups, etc., and the effects of such policies on the total population of the country.

6. Micro vs Macro Study:

The true scope of demography relates to whether it is a micro or macro study.

Micro Demography:

Micro demography is the narrow view of population studies. Among others, Hauser and Duncan include the study of fertility, mortality, distribution, migration, etc. of an individual, a family or group of a particular city or area or community

As pointed out by Bogue, "Micro demography is the study of the growth, distribution and redistribution of the population within community, state, economic area or other local area." According to the micro view, demography is primarily concerned with quantative relations of demographic phenomena.

Macro Demography:

A majority of writers take the macro view of population studies and include the qualitative aspects of demography. To them, demography includes the interrelationships between population and social, economic and cultural conditions of the country and their effects on population growth. It studies size, composition and distribution of population, and long run changes in them. Why migrations take place and what are their effects? What leads to urbanisation and what are its consequences? All these form part of macro aspects of population studies which also include unemployment, poverty and policies relating to them; population control and family welfare; and theories of population, migration and urbanisation, etc

Prof. Bogue explains macro demography as "the mathematical and statistical study of the size, composition, and spatial distribution of human population and of changes over time in these aspects through the operations of the five processes of fertility, mortality, marriage, migration and social mobility. It maintains a continuous descriptive and comparative analysis of trends, in each of these processes and in their net result. Its long run goal is to develop theories to explain the events that it charts and compares."

Balanced View:

Writers like Bogue, Lorimer and others favour a balanced view of population studies. They do not believe in dividing the study of demography into two separate micro and macro divisions. As pointed out by Lorimer,"A demographer limited to the merely formal treatment of changes in fertility, mortality and mobility would be in a position like that of a formal chemist observing the compression of mercury with no information about associated changes in temperature or the constituent of the liquid." Therefore, the scope of demography should include both micro and macro aspects of population. According to Thompson and Lewis, it should relate to fertility, mortality, information about female population, their health, marital status, distribution and classification of population according to

occupation, and collection and study of information about social and economic condition, and migration of population.

1.8 Importance of Demography:

With the majority of developing countries facing population explosion, the study of population and its problems has become very important in every sphere of an economy.

We discuss them below:

(1) For the Economy:

The study of demography is of immense importance to an economy. Population studies help us to know how far the growth rate of the economy is keeping pace with the growth rate of population. If population is increasing at a faster rate, the pace of development of the economy will be slow. The government can undertake appropriate measures to control the growth of population and to accelerate the development of the economy.

Rapid population growth reduces per capita income, lowers the standard of living, plunges the economy into mass unemployment and under employment, brings environmental damage and puts a burden on existing social infrastructure. Population studies highlight these problems of the economy to be solved by the government.

(2) For Society:

Population studies have much importance for the society. When population is increasing rapidly, the society is faced with innumerable problems. Shortages of basic services like water, electricity, transport and communications, public health, education, etc. arise.

Along with these, problems of migration and urbanisation are associated with the growing population which further lead to the law and order problem. Faced with such problems which are the concomitant result of population growth, the state and non-government social organisations can adopt appropriate measures to solve them.

(3) For Economic Planning:

Data relating to the present trend in population growth help the planners in formulating policies for the economic plan of the country. They are kept in view while fixing targets of agricultural and industrial products, of social and basic services like schools and other educational institutions, hospitals, houses, electricity, transport, etc.

Population data are also used by the planners to project future trends in fertility and to formulate policy measures to control the birth rate.

Based on population data, projections are made about the increase in labour force, and the number of people in the age-groups 1-15 years, 15-50 years and above in order to estimate the labour force available for productive employment. This, in turn, helps in making estimates regarding employment to be generated during the plan period.

(4) For Administrators:

Population studies are also useful for administrators who run the government. In under-developed countries, almost all social and economic problems are associated with the growth of population. The

administrator has to tackle and find solutions to the problems arising from the growth of population. They are migration and urbanisation which lead to the coming up of shanty towns, pollution, drainage, water, electricity, transport, etc. in cities.

These require improvement of environmental sanitation, removal of stagnant and polluted water, slum clearance, better housing, efficient transport system, clean water supply, better sewerage facilities, control of communicable diseases, provision of medical and health services, especially in maternal and child welfare by opening health centres, opening of schools, etc.

(5) For Political System:
The knowledge of demography is of immense importance for a democratic political system. It is on the basis of the census figures pertaining to different areas that the demarcation of constituencies is done by the election commission of a country. The addition to the number of voters after each election helps to find out how many have migrated from other places and regions of the country.

Political parties are able to find out from the census data the number of male and female voters, their level of education, their age structure, their level of earning, etc. On these basis, political parties can raise issues and promise solutions in their election manifestos at the time of elections.

Further, it is on the basis of male and female voters in an area that the election commission establishes election booths for voters and appoints the election staff

1.9 Interrelationship between Demography and other discipline

Anthropology

There is no direct relation between the two. However, demography is often used in anthropological report writings, case studies, field work or any other way of data collection.

Demography is the study of statistics of a population such as number of births and deaths, sex ratio, income, standard of living etc.

Anthropology is the study of humans on various fronts such as physical, social, cultural, linguistic etc. Various branches of Anthropology deal with various aspects of human life.

Anthropologists perform several field works in their career and they do require the use of the statistics of the population which they are conducting their study on. There's where demography comes into use.

After the completion of the field work, they usually update the demographic records of the population for future use.

There's a sub discipline of Anthropology which is called demographic anthropology. It uses the anthropological tools to have a better understanding of the demographic phenomenon of a community. But then it's not any major sub - discipline. Anthropology has several sub branches which are not of much relevance today.

Also, softwares such as SPSS (Statistical Package of Social Science) have also eased the work of field workers and therefore, demographic anthropology has lost its relevance.

SOCIOLOGY

Demography is a science related with population. It studies different aspects of population like its size, density, effects of birth rate, death rate, migration, etc.

Sociology is the study of social activities of man and social relations formed out of that. There are many aspects common to demography and sociology, such as size of population, illiteracy, family planning, etc. The size of population is studied under demography, but the size of population affects the social, cultural, economic and moral aspects of the society.

It thus makes itself essential for sociology to consider problems of population. While studying the qualitative aspects of human beings, demography takes ample information from sociology regarding illiteracy, juvenile delinquency, beggar problem, etc. Thus, both demography and sociology are mutually related to each other.

Kingley Davis points out the following areas of study which require a combined knowledge of demography and sociology: fertility, population changes, structure of labour force, social organisation, family with regard to demographic behaviour, and internal and external migration.

Similarly, Broom and Selznick regard demography as one of the nine elements of sociological analysis such as social organisation, socialisation, social stratification, primary groups, associations, collective behaviour, culture, ecology and population.

Along with the above similarities between them, there are also some differences between the two. First, marriage, migration, family, etc. are studied under both, but sociology studies these as parts of a social institution and finds out its effects on social life. On the other hand, demography while studying these subjects takes into account their contribution to the structure of population and its size.

Thus sociology studies social relationships while demography studies social relations related to population. Second, sociology is a social science of ‘what is’ and demography is a social science of ‘what ought to be’. Third, sociology describes social relations qualitatively, whereas demography is concerned with quantitative relations of demographic phenomena using various methods of measurement.

ECONOMICS:

Economics studies the problems arising out of the economic activities of the individual and society, while demography is concerned with the structure of population and demographic factors related to that.

Economics and demography are mutually related to each other. Demography studies regional distribution of the population. The regional distribution of population deeply affects the economic activities and economic factors of the society.

In this way, information gathered by the demographers proves useful to the economists. In the same way, economics also helps to provide useful information to demography. For determining the size of the population, demographers must know the size of production and consumption of goods and services, which come under the study of economics.

Population growth in developed countries having abundant capital and scarcity of labour has led to their high per capita GNP. But in an under-developed country, high population growth leads to declining productivity, low per capita income, mass unemployment, low rate of capital formation and low growth rate of the economy. As pointed out by Bowen, "Population growth, size and distribution cannot be discussed rationally except in the context of economic growth or change."

There being many fields, which are common to both the sciences, still there are some differences between the two. First, economics studies production as an economic activity of man, also keeping in view demand and supply.

On the other hand, demography studies production to know its overall effect on the quality of the population. Second, demography studies birth rate to see its effects on the size of population, while economics studies birth rate to know its effect over labour market, price, production, consumption, demand and supply, etc.

The scope of economics is very wide as compared with demography. Infact, demography is now a part of the study of economics.

SOCIAL BIOLOGY:

Social biology is a branch of biology. It studies the biological activities of man, living as a member of the society. It studies the origin of living beings, the place of human beings, the origin of different species, reproduction, hereditary processes, etc.

Demography, on the other hand, is the study of population-oriented activities like birth rate, death rate and quality of population. Besides, it also studies the size and structure of population, changes in population, etc.

Like other social sciences, social biology has mutual relations with demography. For example, demography studies the reproducible aspects of population and for this, theories and principles of social biology are helpful to a large extent.

Demography also helps social biology in its field of study. It studies the effect of differences in birth rates over the physical and mental qualities of the population. On the basis of this, the foundation of the science of reproduction was laid in England by Galton in social biology. Both the sciences are complementary in nature.

As is the case with other social sciences, social biology also differs from demography. Marriage is the subject matter of both the sciences but demographers see the role of the age of marriage in the growth of population, while social biology finds out the effect of marriage, relation between different castes on reproduction and their traits.

Social biology is concerned with the study of reproductive process of the human body while demography studies the reproducible aspects of human beings. Lastly, social biology is a natural science having uniform laws applicable to all human beings. But demography is a normative science in which we expect the birth rate, death rate, life expectancy, etc. to be high or low depending upon a country's economic conditions.

GEOGRAPHY:

Geography studies the geographical features of the earth, such as climate of different parts, natural resources, people and their economic lives. Previously, we used to study physical and biotic features in geography, but now in the present era, the importance of human ecology has increased a lot.

In other words, the importance of population studies has increased. In geography, we study the distribution of population, keeping in view the economic, social and cultural aspects.

As pointed out by Ackerman, "Recent geographers have taken the cultural features of the earth, analysed them generically and genetically in their space relations and established co-variant relations of cultural features with each other and with those of the physical and biotic environment. These distributional features are common to both demography and geography."

The population census is always done in a definite geographical area. In the population census, the study of differential and similarity of demographical aspects of different geographical areas is made. Moreover, both geographers and demographers analyse population census.

The analysis of demographic data is done to focus the geographical differential between the developed and under-developed countries. Geographers study the birth rate, death rate and migration rate. Geographers also study ethnic distribution, races, health, ages and sex.

We also study population dynamics in geography which is called human geography which includes "location and characteristics of population, spatial pattern in population distribution, and interrelationship between population and other elements of geographic environment." Thus demography provides the essential feedback for the study of geography.

However, there is one basic difference between demography and geography. Physical geography is concerned with natural resources, climate, forests, rivers, etc. which cannot be controlled by man. On the other hand, demography is concerned with such variables as birth rate, death rate, migration rate, etc. which can be controlled by man.

HUMAN ECOLOGY:

There is a close relationship between demography and human ecology. Human ecology is mainly concerned with population and environment. It deals with the relations and interrelations between nature in general and human nature in particular.

From the ecological point of view, people live and exploit, and change and develop environmental resources. That is why Hutchinson and

Dewey characterise human ecology as "nothing else but bio-demography."

There are a number of areas of study which show close relationship between human ecology and demography. Human ecology studies many demographic problems like fertility and mortality, uses demographic data and techniques.

For instance, life tables are studied in both human ecology and demography. Human ecologists use demographic variables as dependent or independent variables in research. On the other hand, demographers use methods, principles and concepts of human ecology in formulating hypotheses. According to P. W. Frank, "Ecology provides specific theoretical statements about human population."

Despite the interrelationship between human ecology and demography, there are a few differences between the two. Human ecology derives its conclusions about death rate, birth rate and immigration based on the study of species like ants, flies, rats, etc. which are not applicable on human beings. Further, cultural and social institutions which form an important part of demography are outside the purview of human ecology.

PUBLIC HEALTH

The health and healthcare needs of a population cannot be measured or met without knowledge of its size and characteristics. Demography is concerned with this and with understanding population dynamics—how populations change in response to the interplay between fertility, mortality, and migration. This understanding is a prerequisite for making the forecasts about future population size and structure which should underpin healthcare planning. Such analyses necessitate a review of the past. The number of very old people in a population, for example, depends on the number of births eight or nine decades earlier and risks of death at successive ages throughout the intervening period. The proportion of very old people depends partly on this numerator but more importantly on the denominator, the size of the population as a whole. The number of births in a population depends on current patterns of family building, and also on the number of women 'at risk' of reproduction—itself a function of past trends in fertility and mortality. Similarly, the number and causes of deaths are strongly influenced by age structure. Demography is largely concerned with answering questions about how populations change and their measurement. The broader field of population studies embraces questions of why these changes occur, and with what consequences.

MATHEMATICS

Quantification is an important element in demography, as population data are available in discrete quantifiable form. The relationship of population studies with mathematics , therefore, assumes great importance. The study of population size, growth, structure and components is entirely done with the help of mathematics. Population experts have attempted to build various mathematical models regarding population growth. Mathematics is thus an important tool in the study and understanding population phenomena. demography and population studies also depend on statistics as tool. It may be recalled that the

development of statistics fostered the development of demography in nineteenth and twentieth centuries. The theory of probability has been extremely useful in the preparation of life tables with high degree of precision and sophistication mainly because of its use of probability theory.

PSYCHOLOGY AND SOCIAL PSYCHOLOGY

Several questions connected with family planning and fertility regulation can be answered only when reproductive behavior of individuals is understood in context of social standards and cultural norms which influence and govern such behavior. For instance some questions, which are often asked are:"what is family size norms in a community? How is it determined? Is it possible to modify norms by stimulating planned changes?" Even in the field of mortality, utilization patterns of behavior is explored and the relevant social norms are studied. Movement from rural to urban area can be studied only by understanding the motivation behind such migration.

LAW

The inter-relationship between population and law becomes clear when an attempt is made to study what the present and future laws of any country can do to solve the problem of over-population. It has been pointed out that population law may be defined as that body of law which of relates directly, or indirectly to the three basic demographic variables of fertility mortality and migration and their various components, which in turn affect the more general problems of the size, growth and distribution of population .' population laws, could, therefore relates to public health and sanitation ; food preparation, distribution and sale; drug and pharmaceutical; clinics, hospitals and all aspects of education and role and status of women. "

The Indian medical termination of pregnancy Act of 1972, which has made induced abortion fairly easy, is the illustration of how the law of how the law of the land can affect an important demographic variable, that is fertility.

1.10 Let us sum up

In this chapter, an introductory theme, definition and meaning of Demography , its scope and interrelation with other science is presented. This unit introduces you to the study of **demography**. What is demog- raphy? It is the systematic and scientific study of human populations. The word *demography* comes from the Greek words *δημοσ* (*demos*) for **popula- tion** and *γραφια* (*graphia*) for "description" or "writing," thus the phrase, "writings about populations." The term *demography* is believed to have first been used in 1855 by the Belgian statistician Achille Guillard in his book *Elements of Human Statistics or Comparative Demography* (Borrie, 1973: 75; Rowland, 2003: 16). There is fair agreement among demog- raphers (Hauser and Duncan,1959; McFalls,2003; Micklin and Poston, 2005; Pressat, 1985; Rowland, 2003) about the objectives and definition of demography.

Demography is the social science that studies 1) the size,

composition, and distribution of the human population of a given area at a specific point in time; 2) changes in population size and composition; 3) the **components** of these changes (**fertility**, **mortality**, and migration); 4) the factors that affect these components; and 5) the consequences of changes in popula- tion size, composition, and distribution, or in the components themselves. Demography may be defined as the scientific study of the size, composition, and distribution of human populations and their changes resulting from fer- tility, mortality, and migration. Demography is concerned with how large (or small) populations are; how populations are composed according to age, sex, race, marital status, and other characteristics; and how popula- tions are distributed in physical space (e.g., how urban and rural they are) (Bogue, 1969). Demography is also interested in the changes over time in the size, composition, and distribution of human populations, and how these result from the processes of fertility, mortality, and migration. The chapters of this book discuss these topics in more depth and provide you with a more detailed introduction to demography.

1.11 Unit- Exercises

1. Define and explain the concept of demography

2. Elucidate the scope of demography.

3. Explain the need and importance of studying demography

1.12 Answer to Check Your Progress

The term demography has been defined both in a narrow and broad sense.

The Oxford Dictionary of Economics defines demography as **"The study of the characteristics of human populations."** According to the UN Multilingual Demographic Dictionary, "Demography is the scientific study of human populations, primarily with respect to their size, their structure and their development."

According to Frank Lorimer, "In broad sense, demography includes both demographic analysis and population studies. A broad study of demography studies both qualitative and quantitative aspects of population."

Thus, according to Donald J. Bougue, "Demography is a statistical and mathematical study of the size, composition, spatial distribution of human population, and of changes overtime in these aspects through the operation of the five processes of fertility, mortality, marriage, migration and social mobility. Although it maintains a continuous descriptive and comparative analysis of trends, in each of these processes and in its net result, its long run goal is to develop a body of theory to explain the events that it charts and compares. "

These broad definitions take into view not only the size, composition and distribution of population and changes in them in the long run but also

imply human migration and change in the status of population through education, employment, social status, etc

Scope of demography:

The scope of demography is very wide. It includes the subject matter of demography, is it a micro or macro study? Whether it is a science or art? These are vexed questions about the scope of demography about which there is no unanimity among writers on demography.

1. Subject Matter of Demography***:***

The subject matter of demography has become very vast in recent years.

The study of demography encompasses the following:

a. Size and Shape of Population:

Generally, the size of population means the total number of persons usually residing in a definite area at a definite time. The size and shape of population of any region, state or nation are changeable. It is because every country has its own unique customs, specialities, social-economic conditions, cultural atmosphere, moral values, and different standards for acceptance of artificial means of family planning and availability of health facilities, etc.

b. Aspects Related to Birth Rate and Death Rate:

Birth rate and death rate are the decisive factors that influence the size and shape of the population and therefore their importance in population studies is crucial. In addition to these, factors like marriage rate, belief regarding social status and marriage, age of marriage, orthodox customs related to marriage, early marriage and its effects on the health of the mother and the child, child infanticide rate, maternal death, still birth, resistance power, level of medical services, availability of nutritious food, purchasing power of the people, etc. also affect the birth and death rate.

c. Composition and Density of Population:

In the subject matter of demography, the study of composition and density of population is important. In the composition of population factors like the sex ratio, race wise and age- group wise size of population, the ratio of rural and urban population, distribution of population according to religion and language, occupational distribution of population, agricultural and industrial structure and per sq. km. density of population are very important.

Socio-Economic Problems:

Out of the many problems relating to population growth, the effects of high density due to industrialization in the urban areas are of more importance as they affect the socio-economic life of the people. Problems like slum areas, polluted air and water, crime, addiction to liquor, juvenile delinquency, and prostitution, are also important subjects of study in demography.

Quantitative and Qualitative Aspects:

Along with the quantitative problems of population, the qualitative problems also form part of population studies. Moreover, the study of demography includes the availability of physicians in the total population, number of hospitals, the number of beds in hospitals, expectation of life at birth, daily availability of minimum calories, resistance power, advertisement of family planning programme and its

development, the changes brought in the attitudes of people regarding child birth and adequate medical facility for delivery, etc.

Importance of study of demography:

(1) For the Economy:
The study of demography is of immense importance to an economy. Population studies help us to know how far the growth rate of the economy is keeping pace with the growth rate of population.

(2) For Society:
Population studies have much importance for the society. When population is increasing rapidly, the society is faced with innumerable problems. Shortages of basic services like water, electricity, transport and communications, public health, education, etc

(3) For Economic Planning:
Data relating to the present trend in population growth help the planners in formulating policies for the economic plan of the country. They are kept in view while fixing targets of agricultural and industrial products, of social and basic services like schools and other educational institutions, hospitals, houses, electricity, transport, etc.

(4) For Administrators:
Population studies are also useful for administrators who run the government. In under-developed countries, almost all social and economic problems are associated with the growth of population. The administrator has to tackle and find solutions to the problems arising from the growth of population. They are migration and urbanisation which lead to the coming up of shanty towns, pollution, drainage, water, electricity, transport, etc. in cities.

(5) For Political System*:*
The knowledge of demography is of immense importance for a democratic political system. It is on the basis of the census figures pertaining to different areas that the demarcation of constituencies is done by the election commission of a country.

1.13 Suggested Readings

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UNIT- II FAMILY AND MARRIAGE: ORIGIN AND EVOLUTION OF FAMILY AND MARRIAGE; IDEOLOGY OF FAMILY RIGHTS AND RESPONSIBILITIES: NORMATIVE FAMILY AND MARRIAGE FUNCTIONS; SOCIAL CHANGE AND CHANGES IN FAMILY AND MARRIAGE FUNCTIONS

Structure

2.1 INTRODUCTION

The family forms the basic unit of social organization and it is difficult to imagine how human society could function without it. The family has been seen as a universal social institution an inevitable part of human society . The family is the most important primary group in a society. It is the simplest and the most elementary form of society. The family as an institution is universal. It is the most permanent and the most pervasive of all social institutions. In case of the west family is defined as an economic and social unit. In case of India, China and Japan family is a cultural religious unit.

Ideology attempts to explain and justify a particular view of some aspect of perceived reality and present it as the only legitimate understanding of that reality. What you should remember is that ideology is principally a set of beliefs about what ought to be the case - they are standards we are taught to try and achieve.

2.2 OBJECTIVES

After studying this unit you will be able understand

The feature of family and marriage

The various types of family and Marriage

Discover the functions of family and marriage

The various changes of family and marriage

After studying this unit you will be able to know *The nature of family ideology*

The Indian family system

2.3 Meaning and Definition of Family

Meaning:

The family is an intimate domestic group made up of people related to one another by bonds of blood, sexual mating or legal ties. It is the smallest and most basic social unit, which is also the most important primary group found in any society. It is the simplest and most elementary group found in a society. It is a social group consisting of a father, mother and one or more children. It is the most immediate group a child is exposed to. In fact, it is the most enduring group, which has tremendous influence on the life of an individual, from birth until death. It also accounts for the most enduring social relation¬ship found in society. Family has been defined by different social scientists.

According to Burgess and Lock the family is a group of persons united by ties of marriage, blood or adoption constituting a single household interacting with each other in their respective social role of husband and wife, mother and father, brother and sister creating a common culture.

G.P Murdock defines the family as a social group characterized by common residence, economic cooperation and reproduction. It includes adults of both sexes at least two of whom maintain a socially approved sexual relationship and one or more children own or adopted of the sexually co-habiting adults.

Nimkoff says that family is a more or less durable association of husband and wife with or without child or of a man or woman alone with children

2.4 CHARACTERISTICS OF FAMILY:

1. Family is a Universal group. It is found in some form or the other, in all types of societies whether primitive or modern.

2. A family is based on marriage, which results in a mating relationship between two adults of opposite sex.

3. Every family provides an individual with a name, and hence, it is a source of nomenclature.

Family is the group through which descent or ancestry can be traced.

5. Family is the most important group in any individual's life.

6. Family is the most basic and important group in primary socialization of an individual.

7. A family is generally limited in size, even large, joint and extended families.

8. The family is the most important group in society; it is the nucleus of all institutions, organizations and groups.

9. Family is based on emotions and sentiments. Mating, procreation, maternal and fraternal devotion, love and affection are the basis of family ties.

10. The family is a unit of emotional and economic cooperation.

11. Each member of family shares duties and responsibilities.

12. Every family is made up of husband and wife, and/or one or more children, both natural and adopted.

13. Each family is made up of different social roles, like those of husband, wife, mother, father, children, brothers or sisters.

Functions of Family:

As a social group and as an important social institution, family performs various func¬tions that are as follows:

1. Family is a unit through which procreation takes place. Marriage sanctions sexual relationships, and it also establishes a family, which is further reinforced with the birth of children.

2. The process of reproduction is institutionalized, regulated and controlled in a family. The family legitimizes the act of reproduction.

3. Family helps in propagation of human species and perpetuation of human race.

4. Family provides an individual with an identity.

5. It is through the family that every family name is carried on from one genera-tion to another.

6. Family is responsible for the production and upbringing of children.

7. Family is an important agent of socialization. The primary socialization of any individual takes place within the family. The immediate family members teach all the basic rules and norms of social life to a child.

8. Family is also an important agent of cultural transmission. Culture is transmitted from one generation to another through family. All the aspects of culture are learnt within the family structure.

9. Family is a great source of strength, emotional and psychological, for its members. All the members are aware that they can depend upon their family in the times of need.

10. Family provides an individual with a home, and establishes enduring social relationships.

11. The family is the basis of division of labour, where all members have their duties and obligations towards each other.

12. A family fulfills the economic needs of its members. This function has undergone transformation, with families moving from being production and consumption units in earlier times, to becoming more of consuming units rather than a producing one. Now-a-days, members of a family no longer produce things themselves; rather, they go out and work for some monetary remuneration or wages.

13. Family is traditionally responsible for the education of the children.

14. Family also has a recreational function. Earlier, most recreation was family- based. Family gatherings during festivals, functions, family reunions, marriages, brought entire families together. Now-a-days, taking family members out on holidays or for movies, plays, dinners, or parties, etc., perform the same function.

Famous Sociologists like Ogburn and Nimkoff have classified functions of family mainly into six types such as:

(i) Affectional (ii) Economic functions (iii) Recreational functions (iv) Protective functions (v) Religious functions and (vi) Educational functions. Another famous sociologist K. Davis have classified the functions of family into four main divisions such as (i) Reproduction (ii) Maintenance (iii) Placement and (iv) Socialization of the young. Davis calls these as social functions and opines that family also performs some individual functions which are a corollary of its social functions.

Similarly Goode classified the functions of family into five different types such as (i) Procreation functions (ii) Socio¬economic security functions (iii) Status determination functions (iv) Socialization functions and (v) Social control functions. Similarly Prof. Lundberg enumerated four basic functions of family such as

ESSENTIAL FUNCTIONS OF FAMILY:

Maclver has divided functions of family into essential and non-essential types. Under essential functions he includes mainly three functions such as, stable satisfaction of sex needs, production and rearing of children and a provision of home. But besides these Maclverian functions of family, family may also perform some other essential functions. But it must be remembered that essential functions are those functions which are basic or fundamental in nature and no other institutions can perform these

functions so successfully as family can. However family performs the following essential functions:

(1) Stable satisfaction of Sexual needs:

This is the most important essential function of family. Family has been performing this functions since the inceptions of human civilization. It is a well known fact that sex urge is the most important and powerful instinct and natural urge of human being. It is the primary duty of family to satisfy the sexual urge of its members in a stable and desirable way.Through the mechanism of marriage family regulate the sexual behavior of it's members. Because satisfaction of sex instinct brings the desire for life long partnership of husband and wife. Satisfaction of this sex needs in a desirable way helps in the normal development of personality. Ancient Hindu Philosopher Manu and Vatsayan opines that satisfaction of sex needs is the primary objective of family. If it is suppressed it creates personality maladjustments.

(2) Procreation and Rearing of Children:

It is another important sectional function of family .Necessary arrangement of stable satisfaction of sexual urge resulted in procreation. Family provides the legitimate basis for production of children. It institutionalizes the process of procreation. By performing this function of procreation family contributes to the continuity of family and ultimately human race. Hence perpetuation of human race or society is the most important function of family. Not only the production of children but also child rearing is another important function of family. Family is the only place where the function of child rearing is better performed.

It provides food, shelter, affection, protection and security to all its members. It plays a vital role in the process of socialization of child. It provides healthy atmosphere in which the personality of the child develops properly. Family takes care of the child at the time of need. Hence it is rightly remarked that family is an institution par excellence for the procreation and rearing of children. It has no parallels.

(3) Provision of Home:

Family perform another important function of providing a home for common living to all it's members. It is only in a home that children are born and brought up. Even if children are born in hospitals in modern time still they are taken care of and properly nourished in a home only. Because family and a home have no substitute. In a home all the members of family live together and a child is brought up under the strict vigilance of all it's members.

All the members need a home to live happily with comfort, peace and protection. A home provides emotional and psychological support to all it's members. Man's necessity of love and human response got fulfilled here. Family provides recreation to it's members. In a home family performs the role of a modern club. Man got peace by living in a home.

(4) Socialization:

It is another important essential function of family. It is said man is not born human but made human. New born human baby became human being after they are socialized. Family plays an important role in the socialization process.It is one of the primary agents of socialization. Living in a family human baby learns norms, values, morals and ideals of society. He learns culture and acquires character through the process of socialization. His personality develops in the course of his living in family. From family he learns what is right and wrong and what is good or bad. Through socialization he became a social man and acquires good character.

(B) NON-ESSENTIAL OR SECONDARY FUNCTIONS OF FAMILY:

Famous Sociologist Maclver has divided functions into essential and non-essential functions. Under non-essential or secondary functions he includes economic, religious, educational, health and recreational functions. Along with the essential functions family also performs these non-essential functions. These functions are non-essential or secondary in the sense that these are also performed simultaneously by other social institutions in family. These functions are as follows:

(1) Economic functions:

Since ancient times family has been performing several economic functions. It is an important economic unit. In ancient time family was both a production and consumption unit. It used to fulfill almost all the economic needs of it's members such as food, clothing, housing etc. In the then days family was self- sufficient. But now a days almost all the economic functions of family is performed by other agencies and family only remain as a consumption unit. It do not produce anything. All the members of family now working outside the home.But in spite of all family still performing some economic functions of purchasing, protecting and maintaining property. It also equally distribute property among it's members.

(2) Educational functions:

Family performs many educational functions for it's members. As an primary educational institution family used to teach letters, knowledge, skill and trade secret to all it's members. It looks after the primary education of it's members and moulds their career and character. Mother act as the first and best teacher of a child. Besides he learns all sorts of informal education such as discipline, obedience, manners etc. from family. Of course at present many of the educational functions of family are taken over by school, college and universities sill family continues to play an important role in providing the first lessons and primary education to its members.

(3) Religious functions:

Family is the centre of all religious activities. All the family members offer their prayers together and observe different religious rites, rituals

and practices jointly. All the members believe in a particular religion and observe religious ceremonies at home. Children learn different religious values from their parents. Living in a spiritual atmosphere spirituality develops among the children. Family transmits religious beliefs and practices from one generation to another. But at present family became more secular in their outlook. Common family worship became very rare and absolute. Still family continues to play an important role in shaping religious attitude of its members.

(4) Health related functions:

Family as a primary social group performs several health related functions for its members. It look after the health and vigor of its members. It takes care of the sick old and aged persons of the family. By providing necessary nutritive food to its members family takes care of the health of all.Of course modern family delegates some of its health related functions to hospital. The child is born today in a hospital or in a clinic and taken care of by nurses.

(5) Recreational function:

Family-performs several recreational functions for it's members by entertaining them in various ways. In ancient period family was the only centre of recreation. All the members together organize family feasts, visit the family relations, organize family picnics etc.Family organize different festivals which is another source of recreation. The relationship between grandparents and grand children is another source of entertainment. After day's work all the members used" to assemble and exchange their view. Of course modern club replaces many recreational functions of family. But at the same time it is said that present family acts as a modern club without its evil effects.

(6) Cultural functions:

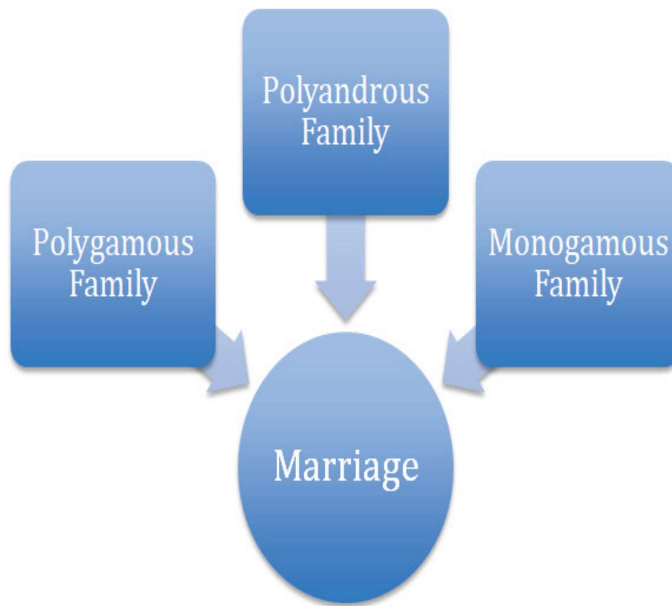
Family also performs several cultural functions as well. It preserves different cultural traits. Man learns and acquires culture from family and transmits it to succeeding generations. That is why family is considered as centre of culture.

(7) Social functions:

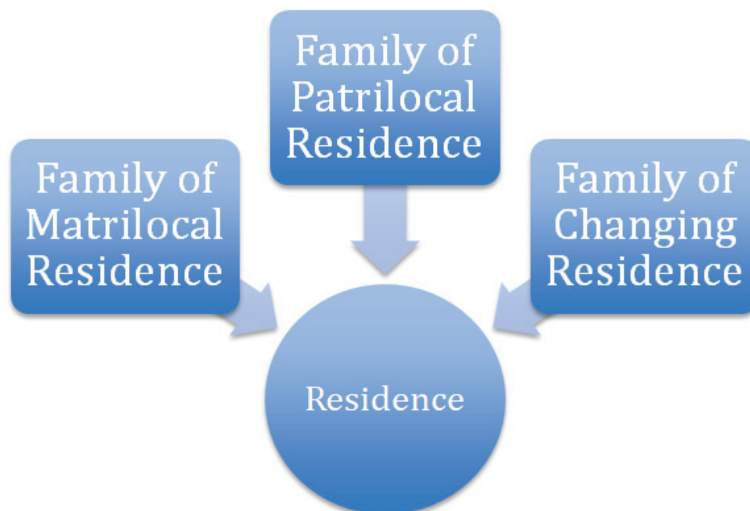
Family performs a number of social functions. It teaches about social customs, mores, traditions, norms, etiquette to the coming generations. Family exercises social control over its members and bring them into conformity with accepted standards. Senior members of family directly control the behavior of children and thereby they became a good citizen.

2.5 Types of Family.

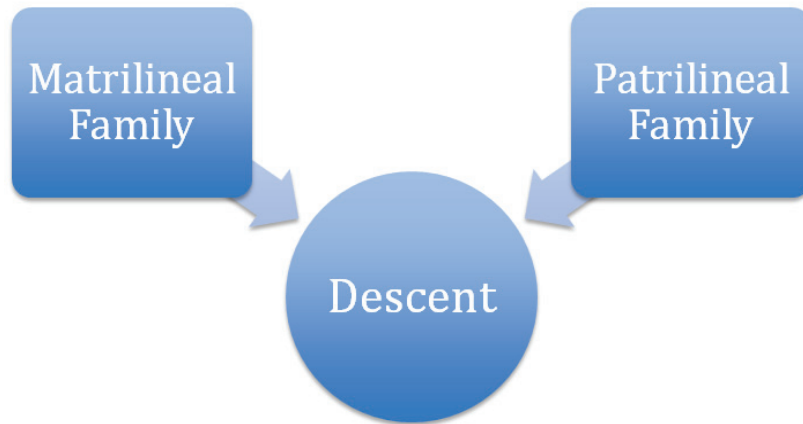
On the basis of marriage family has been classified into three major types.



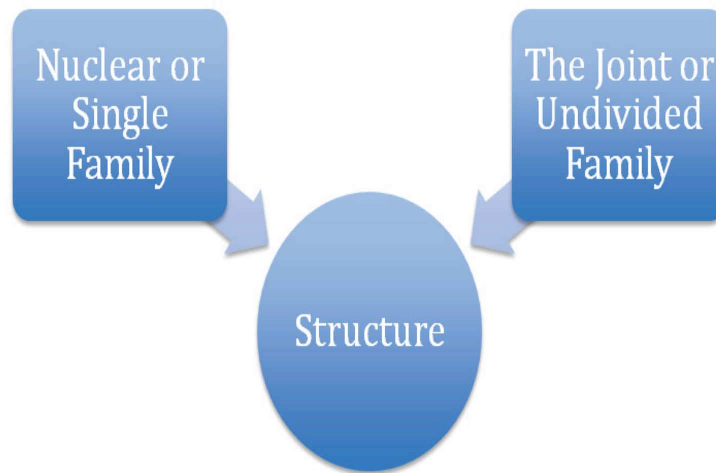
On the **basis of nature of the residence** family can be classified into three main types:



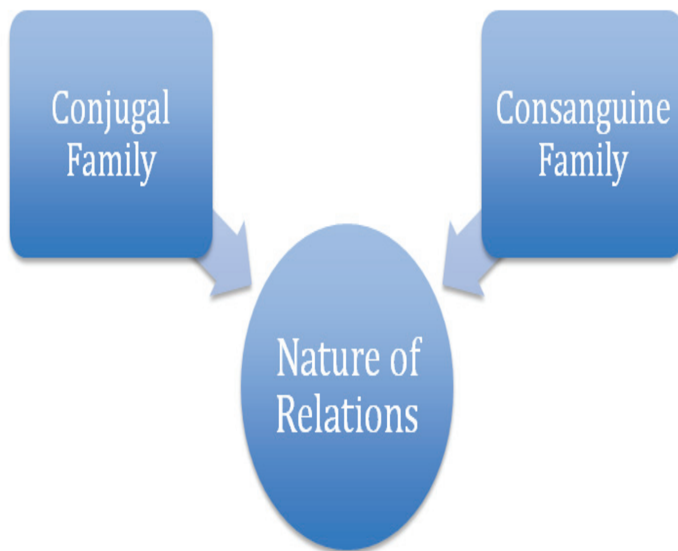
On the **basis of ancestry or descent** family can be classified into two main types:



On the **basis of size or structure and generations** of family can be classified into two main types:



On the **basis of nature of relations among the family members**, the family can be classified into two main types:



Types of Family in India

Matriarchal Family

The matriarchal family known as mother centered or mother dominated family. The mother or the woman is the head of the family. She exercises authority and manages the property. The descent is traced through the mother hence it is matrilineal in descent. Daughters inherit the property of the mother. The status of the children is decided by the status of the mother. Matriarchal family is matrilocal in residence. After the marriage the wife stays back in her mother's home. The husband pays occasional visits to the wife's home. In theory mother exercises authority and power in the matriarchal family. She is the head of the family and her decisions are final. But in practice some relatives of the family, her brother exercises authority in the family. The maternal family brings together the kinsmen and welds them in a powerful group.

Patriarchal Family

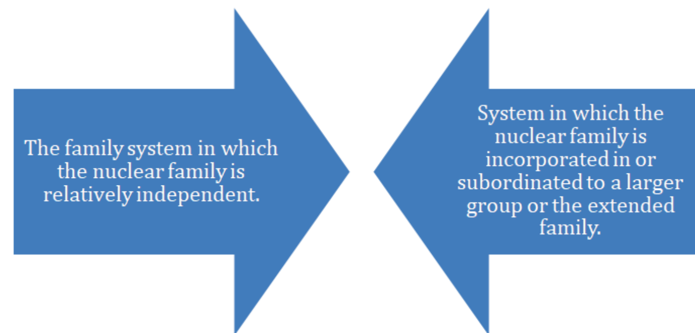
The patriarchal family is also known as father centered or father dominated family. The father is the head of the family and exercises authority. He is the administrator of the family property. The descent, inheritance and succession are recognized through the male line. Patriarchal families are patrilineal in character because the descent is traced through the male line. Only the male children inherit the property. Patriarchal family is patrilocal in residence. Sons continue to live with the father in his own house even after their marriages. Only the wives come and join them. Women have secondary position in these families. Children are brought up in their father's family.

Nuclear Family

The individual nuclear family is a universal social phenomenon. It can be defined as a small group composed of husband and wife and children that constitute a unit apart from the rest of the community. The nuclear family

is a characteristic of all the modern industrial societies in which a high degree of structural and functional specialization exists.The nuclear family comprises a cohabiting man and woman who maintain a socially approved sexual relationship and have at least one child. The traditional nuclear family is a nuclear family in which the wife works in the home without pay while the husband works outside the home for money. This makes him the primary provider and ultimate authority according to Popenoe.

According to Lowie it does not matter whether marital relations are permanent or temporary; whether there is polygyny or polyandry the one fact stands out beyond all others that everywhere the husband, wife and immature children constitute a unit apart from the remainder of the community. T.B.Bottomore states that the universality of the nuclear family can be accounted for by the important functions that it has been performing. The nuclear family has been performing the sexual, the economic, the reproductive and the educational functions. The indispensability of these and few other functions has contributed to its universality. A major factor in maintaining the nuclear family is economic cooperation based upon the division of labor between the sexes. The structure of the nuclear family is not same everywhere. Bottomore makes a distinction between two kinds of family system

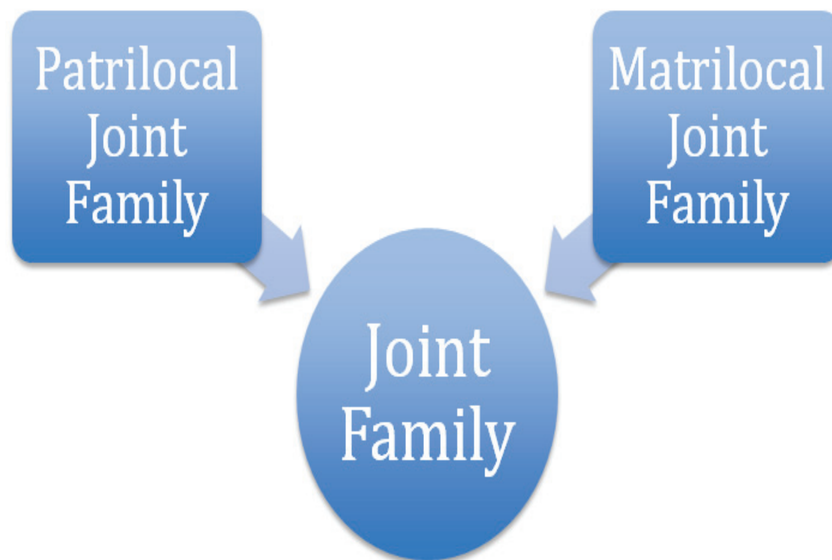


Vogel and Bell have presented a functional explanation based on the intensive study of American families with emotionally disturbed children. Often the tension and hostility of unresolved conflicts between parents are projected onto the child. The child is thus used an emotional scapegoat by the parents to release their tension. It serves as a personality stabilizing process for the parents and keeps the family united but the child pays the cost of such unity.

The Joint Family

The joint family is also known as undivided family or extended family. It normally consists of members belong to two-three generations: husband and wife, their married and unmarried children and their married or unmarried grandchildren. The joint family system constituted the basic social institution in many traditional societies particularly Asian societies like Indian. The joint family is considered as bedrock on which Hindu values and attitudes are built. The joint family is a mode of combining smaller families into larger family units through the extension of three or

more generations. In joint family the members are related through blood and spread over several generations living together under a common space and work under common head. According to Iravati Karve, the joint family may be defined as a group of people who generally live under one roof, who eat food cooked at one hearth, who hold property in common and who participate in common family worship and are related to each other as some particular type of kindred. There are two forms of joint family:



SOCIAL PROCESS AFFECTING FAMILY

An elementary family can be defined as a social group consisting of father, mother and their children. Bohannan in his definition of the family emphasized the functional as well as the structural roles of the family. According to him a family contains people who are linked by sexual and affinal relationships as well as those linked by descent who are linked by secondary relationships that is by chains of primary relationships.

According to William J Goode at least two adult persons of opposite sex reside together. They engage in some kind of division of labor i.e they both do not perform exactly the same tasks. They engage in many types of economic and social exchanges i.e. they do things for one another. They share many things in common such as food, sex, residence and both goods and social activities. The adults have parental relations with their children as their children have filial relations with them; the parents have some authority over their children and both share with one another while also assuming some obligations for protection, cooperation and nurture. There are sibling relations among the children themselves with a range of obligations to share, protect and help one another. Individuals are likely to create various kinds of relations with each other but if their continuing social relations exhibit some or all of the role patterns, in all probability they would be viewed as the family.

A host of inter-related factors like economic, educational, legal and demographic like population growth, migration and urbanization etc have

been affecting the structure of the family in India. There are many published accounts demonstrating that changes have taken place in the structure of the family due to exposures to the forces of industrialization. Nuclear status of family is considered as the outcome of its impact. Such an interpretation presupposes existence of non-nuclear family structure in such societies. Empirical evidence sometimes does not support this position. Further industrial establishments have their own requirements of human groups for their efficient functioning. As a result people are migrating to industrial areas and various kinds of family units have been formed added extra-ordinary variety to overall situation.

Due to the influences of urbanization the joint family structure is under severe stress and in many cases it has developed a tendency toward nuclear family. When there is no disagreement on the authenticity of such a tendency the traditional ideal joint family was perhaps not the exclusive type before such influences came into existence. Both modernization and urbanization are considered as the major contributing factors toward modernization. In fact modernization as a social –psychological attribute can be in operation independent of industrialization and urbanization. With the passage of time through exposures to the forces of modernization family structure underwent multiple changes. One of the important features of the family studies in India has been concerned with the question of whether the joint family system is disintegrating and a new nuclear type of family pattern is emerging.

According to Augustine it seems almost unrealistic that we think of a dichotomy between the joint and nuclear family. This is especially true given the rapidity of social change that has swept our country. In the context of industrialization, urbanization and social change it is very difficult to think of a dichotomy between the joint and the nuclear family in India. In the present context these typologies are not mutually exclusive. Social change is an inevitable social process that can be defined as observable transformations in social relationships. This transformation is most evident in the family system. However because of structures our traditionally these transformations are not easily observable.

According to Augustine the concept of transitionality has two dimensions – retrospective and prospective. The retrospective dimension implies the traditional past of our family and social system while the prospective one denotes the direction in which change is taking place in our family system.

Transitionality is thus an attempt to discuss the crux of the emergent forms of family. The studies conducted in several parts of the country show that the joint family system in India is undergoing a process of structural transformation due to the process of modernization, industrialization and urbanization. A nuclear family develops into a joint family after the marriage of a son and hence the process of fission and fusion take place in the family system due to various reasons. In most parts of India where patriarchal families exist sons are expected to stay put together with the parents till the marriage of the children. After this they tend to separate. Thus the process of fission take place and the joint

family is broken into relatively smaller number of units –sometimes into nuclear units. Nicolas on the basis of his study in rural West Bengal concludes that if a joint family between a father and his married sons divides a joint family among brothers rarely survive. The father seems to be the keystone of the joint family structure. Despite the solidarity among the male siblings after the father's death many forces tend to break the joint family into separate units.

Significant numbers of studies have been conducted on the urban family structure in India. T.K Oomen in his article Urban family in Transition points out that most of these studies have been obsessed with a single question is the joint family in India breaking down and undergoing a process of nuclear due to urbanization? Scholars point out that industrial urbanization has not brought disintegration in the joint family structure. Milton Singer studies the structure of the joint family among the industrialists of Madras City. He finds that joint family system has not been a blockade for entrepreneurship development. Rather it has facilitated and adapted to industrialization.

Ramakrishna Mukherjee in 'Sociologists and Social Change in India Today' finds that the joint family is over represented in the trade and commerce sector of national economy and in the high and middle grade occupations and nuclear family is over represented in the rural rather than in the urban areas. Based on his study on the family structure in West Bengal he concludes that the central tendency in the Indian society is to pursue the joint family organization. T.K Oomen is of the opinion that so far urban family has been viewed from within as a little society .To him for a proper understanding the urban family should be placed in a broad social context. For this purpose the urban families should be placed in a broad social context. The urban families are to be distinguished through the mode of earning a livelihood and sources of income, structure of authority, urban social milieu and social ecology and the emerging value patterns. The socio-ecological factors like the settlement patterns, cultural environments of the urban migrants and associations to various occupational, political, ideological, cultural, economic groups influence and reorient the style and pattern of urban families. The urban centers are melting pots of traditional and modern values. Individualism is growing at a significant speed in the urban areas. Individualism is against the spirit of the joint family and questions the established authority of the patriarchal set up.

In the context of rapid technological transformation, economic development and social change the pattern of family living has been diverse in urban India. Life is complex both in the rural and in the urban areas .In the urban areas and even in the rural areas many couples are in gainful employment. They depend on others for childcare. With the structural break down of the joint family they face lot of difficulties in raising their children. For employment many rural men come out of the village leaving behind their wives and children. In the process of structural transformation the old structure of authority and value has been challenged. The growing individualism questions the legitimacy of the age-old hierarchic authority. The old value system also changes significantly. However this system of transformation has minimized the importance of mutual respect, love and affection among the family

members belonging to various generations. The lack of emotional support in the family often leads the youth to the path of alcoholism and drug addiction.

. 2.6 CHANGES IN THE FAMILY

INTRODUCTION:

The importance of family structure in India had been recognized since Vedic age. The concept of Vasudhaiva Kutumbakam(The earth is one family) was given to the world by India. Indian people learn the essential themes of cultural life within the bosom of a family. However, the last two decades have drastically changed Indian social scenario. A sudden shift from joint to nuclear to single parent or childless families is apparent. In such a situation dealing with financial, social and moral obligations is becoming more and harder for the earning member of family. Be it time, location or desired attention, the earning members find themselves trapped in middle of conflicting responsibilities. And, even if they chose one of them, the other side always hankers for attention. Where to compromise becomes the decision point and family appears as the easier solution. But, this decision makes the compromised party the detached or distressed one. The problem aggravates when the family members have to reposition to distant lands. Manageable problems such as, time, money and attention has shifted to serious problems of security and health issues. In the recent past, the effect globalization have further intensified the change of social and family structures in the world and India is not an exception. India's fertility rate has fallen, and couples have begun to bear children at a later age. At the same time, life expectancy has increased, resulting in more elderly people who need care. All of these changes are taking place in the context of increased urbanization, which is separating children from elders and contributing disintegration of family-based support systems (Srivastava and Sasikumar 2003).This paper critically examine the impact of various contributing factors on Indian family structure.

Change in Fertility:

The reduction in average annual rate of population growth primarily occurred due to reductions in fertility levels. An inevitable outcome of declining fertility rates and increasing age at first birth in most of the countries in the world, including India, is a reduction in family size. Fertility declined due to the combined effect of substantial socio-economic development achieved during the last two decades and the effective implementation of family planning programmes. Hence, it has become irrational for many people to have large families as the cost of children is increasing. A main, emerging feature of modern family is the changing attitude towards the value of children. In traditional societies, where human labour was a source of strength to the family, more children were preferred to fewer. But as the economic contribution from the children in a family decreased, because of a move away from agriculture, the need for large numbers of children decreased. Improvements in health care and child survival also contributed. The emphasis was on the quality

of life rather than the quantity of children, a new concept added to family values.

Change in Age at marriage:

In many countries in world where significant declines in fertility are being experienced, reductions in the proportion of people never married have often coincided with or preceded declines in marital fertility. A substantial increase of the proportions never married, among both males and females, at young ages, has been noted in many countries. A consequence of the increase in the proportion of never married young adults is the gradual upward trend of the average age at marriage. The highest increase in average age at marriage of females during the period 1970 to1990 was observed in India. A higher median age at first birth is an indicator of lower fertility. Postponement of marriage among females resulted postponement of childbearing with reduction in family size.

Change in Mortality:

Mortality declines, particularly infant mortality, everywhere preceded the decline of fertility. Improved survival rates of children mean that when women reached the age of 30 they increasingly had achieved the completed family size they desired. Earlier, much larger numbers of births were required to achieve the desired completed family size. . In the last three decades infant mortality has declined significantly in every country and this trend undoubtedly influenced the fertility decline. Mortality decline, followed by fertility decline, altered the age structure of the population and also the structure within individual families.

Change in family Size:

In India, the reduction of the family size could be attributed partly to economic difficulties, low levels of income, the high cost of living, the costs of education of children and the desire to maintain a better standard of living, which is best achieved within the more affordable smaller size family. Consequently, the nuclear family with its Parents and children became the model of society and soon ruled out the traditional, extended family usually constituting three generations. In the mean time, female headed households have become a steadily growing phenomenon (Bruce and Lloyd, 1992) and increasing in India.

Marriage Dissolution:

It is no longer the case that all marital unions, whether formal or informal reach final dissolution through death. A considerable proportion of unions are disrupted suddenly for reasons such as desertion, separation or divorce. An obvious failure in family relationship is where husband and wife cease to live together. Those women who are divorced at latter ages mostly remain single for the rest of their lives and live with their dependents. The idea that when a couple has children it will be less likely to divorce is widely accepted in most societies. However it is believed that in the last couple of years even in most of the Asian cultures, including India, a growing proportion of divorces involve couples with young children (Goode, 1993).

Participation of Women in Economic development:

The commercialization process which opened markets in many developing countries has succeeded in replacing the traditional co-operation in economic relationship, with that of competition. In this process, the social institutions in these countries found themselves in conflict with the key aspects of the new economic systems. The economics of the family and the sexual division of labour within the family are very much determined by opportunities in the labour market. The developing economic of system India has facilitated the freeing of women from household chores and their entrance to the labour market. The declining ability of men to earn a 'family wage' along with the growing need for cash for family maintenance has resulted in an increasing nunmber of female members (particularly the wife) in the family engaging in economic activities (Lloyed and Duffy, 1995).

EFFECTS OF URBANIZATION ON FAMILY:

The increased proportions of population residing in urban areas of country have been observed during last the two decades. This urbanization processes have a tendency to stabilize the nucleation of the family system because urban congestion and housing patterns, particularly of the low income groups, discourage large households. A gradual collapse of the extended family system tended to create new problems of family support for the young dependents and older persons in the family. Moreover, consequent to rural to urban migration and rapid urbanization processes, a small average household size is observed for urban areas, compared to rural, almost in every part of the country.

Impact of Ageing on Family:

Caring for older persons seems to have other implications that are an outcome of changing societal norms and the resultant changes that had taken effect within families. The traditional obligations towards parents and the duty, to provide them with the love and care that they deserve, are now difficult to fulfill. The prospect of the younger people living with their parents is becoming increasingly difficult if not impractical, as the search for employment opportunities takes them away from their homes and to distant lands (UN, 1999). Changing out looks and the need for adult children to move in search of employment is result in declines in coexistence of multi generational members of the family.

Impact of Globalization:

Globalization accelerates the free flow of labour across continents. Globalization and open economies have created opportunities for migration and this has influenced the family to change its structure. Specifically skilled men and woman in large numbers are migrating to middle-east countries seeking employment. As a result, the traditional decision making responsibility of the male head of the family, in a patriarchal society started collapsing with foreign employment and improved economic status of women. In most of the families, with overseas employed women, the husband become "house husband" as

opposed to the "bread winner" of the family; he in fact was dependent on the wife and it has affected changes in traditionally defined familial relationships, roles and duties of the house hold.

Concept of Nuclear family:

In recent decades, globalization has tended to promote the nucleation of family units. Difficulties of child bearing and rearing due to formal sector employment, lack of government incentives, global cultural influences, and rural to urban migration have diminished the importance of the extended family. The nuclear family has a high capacity for mobility. This capability is advantageous as families move from one place to another within short periods of time due to the instability and working routines involved with new kinds of jobs. Another adaptive method of coping with new trends is for families to consume services they no longer provide directly to their members. Moving towards substitutes for familial functions and services is marked by a growing number of day care centers, super markets and take-away restaurants, homes for the aged, and paid hospitals for health care. So as we try to understand how families in this region respond to the process of globalization, we are left with only one general conclusion which implies that the future outcome will be nothing but complete nucleation of families and westernization of family norms and structure with emerging family types such as single parent families.

- A person referred to as the parent of his or her child indicates the practice of Teknonymy.
- Rivers has given the explanation of kinship terms referring to social usages which are antecedent to their use.
- The residence rule which gives choice to the newly -weds to live with the parents of either the groom or the bride is known as biolocal.
- When both patrilineal and matrilineal rules apply jointly it is called double descent.

- Weiser stressed that clan is usually associated with totemism.
- Levi Strauss has regarded preferential mating as a device for strengthening group solidarity.
- Westermarck has written the history of human marriage.
- Westermarck has listed various causes of polygyny including variety of women.
- Murdock has distinguished between the family of orientation and the family of procreation.
- Morgan suggested historical evolution of the form of marriage and family.
- Tribes such as Mundas and Nagas do not permit marriage between persons from the same village.
- According to Westermarck marriage is itself rooted in the family rather than family in marriage.
- According to D.N Majumdar the Hindu society presently recognizes only two forms of marriage the Brahma and Asura.
- A Tarawad splits into smaller units called Tavazhis.
- When one becomes the member of the consanguineal relatives of

both father and mother, it is known as bilateral descent.
- The rule of residence generally followed in India is patrilocal.
- When not mutual, a joking relationship assumes the form of social control.
- Where father's sister is given more respect than the mother the relationship is called amitate.
- Neolocal rule of residence is generally followed in western countries.
- People bond together in groups based on reproduction refers to kinship.
- Experimental marriage is known as privileged relationship.
- Marriage of one man with a woman and her several sisters are called sororal polygamy.
- The marriage of a Hindu is illegal if his or her spouse is alive.This restriction is according to Hindu Marriage Act.
- Marriage of a man of high caste with a woman of lower caste is called Anuloma marriage.
- Levi Strauss believed that no society was perfectly unilineal.
- Radcliff Brown introduced the term lineage group to designate the living members of a group.
- Morgan believed the earliest form of kin group to be the clan.
- Rivers has listed belief in common descent and possession of a common totem as characterizing a clan.
- Murdock has called the clan a compromise kin group.
- Radcliffe Brown defines sib as a consanguineous group not sharing a common residence.
- Horton and Hunt described the marriage as the approved social pattern whereby two or more persons establish a family.
- A nomenclature of the family function is symbolic of system to reckoning descent.

MARRIAGE

What is Marriage in Sociology?

Marriage is one of the universal social institutions established to control and regulate the life of mankind. It is closely associated with the institution of family. Infact both the institutions are complementary to each other. It is an institution with different implications in different cultures. Its purposes, functions and forms may differ from society to society but it is present everywhere as an institution.

Definition of Marriage by Authors

Westermarck in 'History of Human marriage' defines marriage as the more or less durable connection between male and female lasting beyond the mere act of propagation till after the birth of offspring. According to **Malinowski** marriage is a contract for the production and maintenance of children. **Robert Lowie** describes marriage as a relatively permanent bond between permissible mates. For **Horton and Hunt** marriage is the approved social pattern whereby two or more persons establish a family.

Characteristics of Marriage:

Marriage may have the following characteristics.

(1) Marriage is a universal social institution. It is found in almost all societies and at all stages of development

(2) Marriage is a permanent bond between husband and wife. It is designed to fulfill the social, psychological, biological and religious aims.

(3) Marriage is a specific relationship between two individuals of opposite sex and based on mutual rights and obligations. Relationship is enduring.

(4) Marriage requires social approval. The relationship between men and women must have social approval. Without which marriage is not valid.

(5) Marriage establishes family. Family helps in providing facilities for the procreation and upbringing of children.

(6) Marriage creates mutual obligations between husband and wife. The couple fulfill their mutual obligations on the basis of customs or rules.

(7) Marriage is always associated with some civil and religious ceremony. This social and religious ceremony provides validity to marriage. Though modern marriage performed in courts still it requires certain religious or customary practices.

(8) Marriage regulates sex relationship according to prescribed customs and laws.

(9) Marriage has certain symbols like ring, vermillion, special cloths, special sign before the house etc.

MAJOR FUNCTIONS OF MARRIAGE,

The major functions of marriage may be discussed under the following heads:
Biological Functions:
Marriage regulates and socially validates sexual relations between males and females. It is the means to satisfy sexual desire of human beings for reproductive process. So the institution of marriage fulfils the biological function of human beings.

Economic functions:
Marriage of men and women create family in which men and women share their labours to satisfy the economic needs of the family members. Both male and female remain engaged in economic activities through the institution of marriage for the economic upliftment of the family.

Social functions:
Through marriage new Kinsmen are acquired because spouses relative are added to one's own group of Kin. The institution of marriage also

enables the society to assign to the parents their responsibility of socializing the child by transforming social customs and social regulations.

Educational Functions:
The institution of marriage educates the young to be responsible future parents to pass the culture from one generation to another Thus marriage performs the most sacred biological function that-gives rise to the family system. Apart from this it performs a number of social, cultural, educational and economic functions.

Rules of Marriage

No society gives absolute freedom to its members to select their partners. Endogamy and exogamy are the two main rules that condition marital choice.

Endogamy:
It is a rule of marriage in which the life-partners are to be selected within the group. It is marriage within the group and the group may be caste, class, tribe, race, village, religious group etc.We have caste endogamy, class endogamy, sub caste endogamy, race endogamy and tribal endogamy etc.In caste endogamy marriage has to take place within the caste. Brahmin has to marry a Brahmin. In sub caste endogamy it is limited to the sub caste groups.

Exogamy:
It is a rule of marriage in which an individual has to marry outside his own group. It prohibits marrying within the group. The so-called blood relatives shall neither have marital connections nor sexual contacts among themselves.

Forms of exogamy:
Gotra Exogamy: The Hindu practice of one marrying outside one's own gotra.

Pravara Exogamy: Those who belong to the same pravara cannot marry among themselves.

Village Exogamy: Many Indian tribes like Naga,Garo,Munda etc have the practice of marrying outside their village.

Pinda Exogamy: Those who belong to the same panda or sapinda(common parentage) cannot marry within themselves.
Isogamy: It is the marriage between two equals (status)

Anisogamy: It is an asymmetric marriage alliance between two individuals belonging to different social statuses. It is of two forms - Hypergamy and Hypogamy.

Hypergamy: It is the marriage of a woman with a man of higher Varna or superior caste or family.

Hypogamy: It is the marriage of high caste man with a low caste woman.

Orthogamy: It is the marriage between selected groups.

Cerogamy: It is two or more men get married to two or more women.

Anuloma marriage: It is a marriage under which a man can marry from his own caste or from those below, but a woman can marry only in her caste or above.

Pratiloma marriage: It is a marriage of a woman to a man from a lower caste which is not permitted**.**

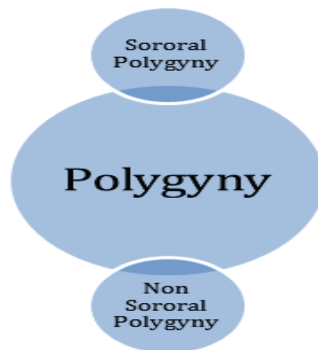
Types of Marriage

Marriage is one of the universal social institutions established and nourished by human society. It is closely connected to the institution of family. According to Gillin and Gillin, "Marriage is a socially approved way of establishing a family of procreation." Westermarck says that marriage is rooted in the family rather than the family in the marriage. Marriage is an institution of society with different purpose, functions and forms in different societies but is present everywhere as an institution. According to Malinowski, " marriage is a contract for the production and maintenance of children." According to Robert H Lowie," Marriage is a relatively permanent bond between permissible mates." The main types of marriages are:



Polygyny

Polygyny is a form of marriage in which one man married more than one woman at a given time. Polygyny is more popular than polyandry but not as universal as monogamy. It was a common practice in ancient civilizations. At present it may be present in primitive tribes like Crow Indians,Baigas and Gonds of India. Polygyny is of two types:

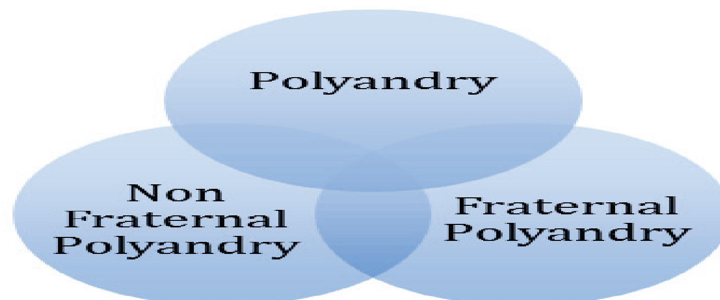


Sororal polygyny

It is a type of marriage in which the wives are invariably the sisters. It is often called sororate. The Latin word Soror stands for sister. When several sisters are simultaneously or potentially the spouses of the same man the practice is called sororate. It is usually observed in those tribes that pay a high bride price.

Non-sororal polygyny

It is a type of marriage in which the wives are not related as the sisters. Polyandry Polyandry is the marriage of one woman with several men. It is practiced among the Marquesan Islanders of Polynesia, The Bahama of Africa and tribes of Samoa. In India among tribes of Tiyan, Toda, Kota, Khasa and Ladakhi Bota it is still prevalent. Polyandry is of two



Fraternal polyandry

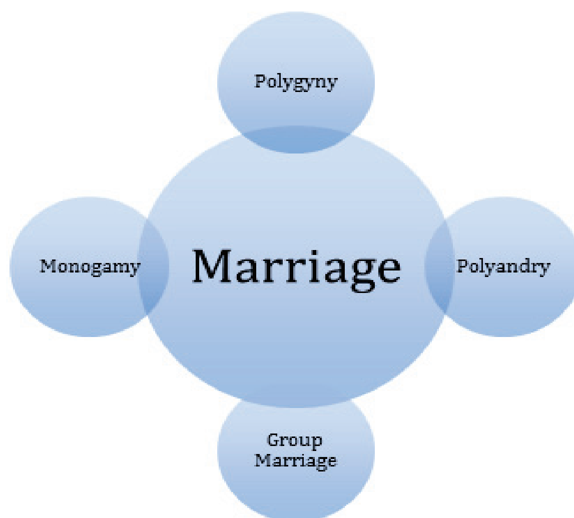
When several brothers share the same wife, the practice can be called fraternal polyandry. This practice of being mate, actual or potential to one's husband's brothers is called levirate. It is prevalent among the Todas in India.

Non - fraternal polyandry

In this type the husbands need not have any close relationship prior to the marriage. The wife goes to spend some time with each husband. So long as a woman lives with one of her husbands, the others have no claim over her. Polyandry has its own implications. It gives rise to the problem of determining biological paternity of the child. Among the Todas one of the husbands goes through what is called a bow and arrow ceremony with the woman and thereby becomes the legal father of her child. Among the Samoans, the children after the first few years are given the liberty to choose their parents for their permanent stay. The selected parent becomes the actual father of the children.

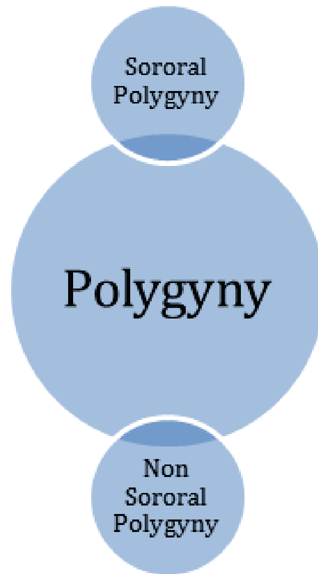
Monogamy

Monogamy is a form of marriage in which one man marries the woman. It is most common form of the marriage found among in the societies around the world. According to Westermarck monogamy is as old as humanity. Monogamy is universally practiced providing marital opportunity and satisfaction to all the individuals. It promotes love and affection between husband and wife. It contributes to family peace, solidarity and happiness. Monogamous marriage is stable and long lasting. It is free from conflicts that are commonly found in polyandrous and polygamous families. Monogamous marriage gives greater attention to the socialization of their children. Women are given very low position in polygyny where their rights are never recognized. In monogamy women enjoy better social status. There are two types of monogamy.



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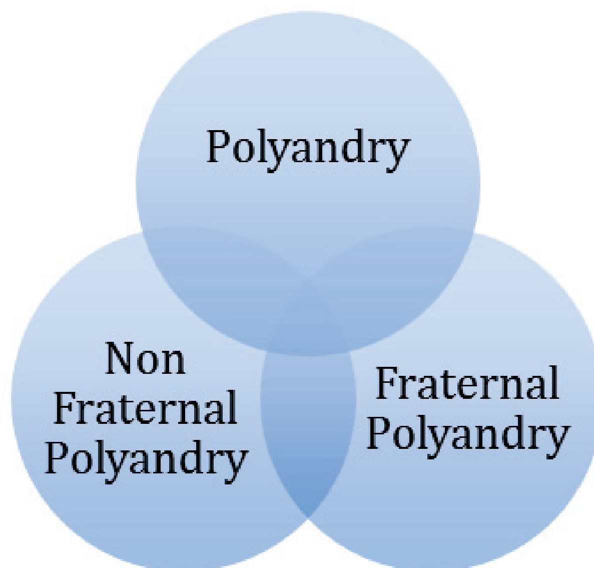
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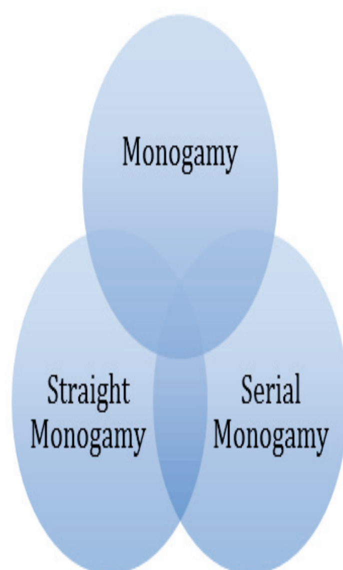
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Serial monogamy

In many societies individuals are permitted to marry again often on the death of the first spouse or after divorce but they cannot have more than one spouse at one and the same time.
Straight monogamy:

In straight monogamy the remarriage of the individuals is not allowed.
Group Marriage

Group marriage means the marriage of two or more women with two or more men. Here the husbands are common husbands and wives are common wives. Children are regarded as the children of the entire group as a whole

Marriage Based on Religion

Hindu Marriage

The Hindu marriage ceremony follows the Vedic rituals and the three main rituals of Kanyadaan, Panigrahana and Saptapadi. are followed. The first means giving away of the bride by the father, second means joining hands of the bride and the groom in front of the fire and third is making seven rounds around the fire.



A Hindu Marriage Image Source

But not all rituals are followed in every Hindu wedding. Like different communities in Kerala and Tamil Nadu do not have the system of lighting a fire and their weddings usually start off early in the morning and the ceremonies wrap up by noon. In Bengal, some ceremonies like gaye holud (turmeric ceremony is done in the morning) but the main wedding ceremony happens in the evening according to the auspicious time shown in the Almanac. North India witnesses the most elaborate wedding ceremonies that take off with the sagai (engagement) and the wedding can go on for days when garlands are exchanged, havan is done and the bride is made to wear the Mangal Sutra. In East India it is the application of vermillion that is more significant and in

2. Christian Marriage

Under the Indian Christian Marriage Act, 1872, Christian marriages are performed by a minister or a priest in a church. The beauty of a Christian marriage in India is a bride often chooses to wear the attire of the community she belongs to instead of opting for a gown. So Christian marriages in India see the bride in traditional attires like sarees, mekhlas

and traditional sarongs and even the groom often opts for traditional attire along with his best men.



Christian Marriage Image Source

Among the types of marriages in India it is a Christian marriage that is a happy amalgam of Indian and Western cultures. The tradition of the feast, the toast and the bouquet are all followed sprinkled with indigenous traditions.

3. Sikh Marriage



Sikh Marriage Image Source

Earlier Sikh marriages were registered under the Hindu Marriage Act but now these are registered under the Punjab Sikh Anand Karaj Marriage Act 2018. The Sikh wedding ceremony is simple. It takes place at the Gurudwara. Before that a ceremony takes place which is called milni where the families of the bride and the groom meet. Then four simple stanzas are recited from their holy text and the bride and groom take pheras around Guru Granth Sahib (Holy Scripture). The bride and the groom wear elaborate traditional attire and amazing food is served at the festivities.

4. Muslim Marriage

A Muslim marriage comes under the purview of Muslim Personal Law (Shariat) Application Act, 1937. Islamic traditions are followed in a Muslim marriage in India. The bride and the groom could opt for Indian traditional attire but the religious ceremony usually strictly adheres to Islamic rules. The wedding ceremony called the Nikah is solemnized by

the Maulavi. There is Kanydan in a Muslim wedding too followed by the reading of the Koran and the groom's proposal and the bride's acceptance



A Muslim Marriage- Nikaah Image Source

5. Parsi Marriage



A Parsi Wedding Image Source

Parsi Marriage and Divorce Act of 1936 is the law under which Parsi marriages are solemnized and registered. Some of the ceremonies followed in a Parsi marriage are exchange of silver coins between the families of the bride and the groom. It is after this ceremony the wife takes the name of the husband. The ceremonies are carried on for three days prior to the wedding and on the fourth day a wedding procession arrives at the bride's house where the marriage is solemnized.After the wedding a couple has to have food from the same dish symbolizing their union.

6. Buddhist Marriage



Buddhist Marriage Image Source

Among the types of marriages in India a Buddhist marriage is probably the most simple one. A Buddhist marriage is registered under the Special Marriage Act, 1954. There are no strictly put down rituals to be followed and no elaborate ceremonies. The Buddhist marriage, true to its religious teachings emphasizes on spirituality and carrying out the vows. There is usually an engagement solomnised by a monk or Rinpoche. On the wedding day the bride and the groom with their respective families visit the temple then the wedding ceremony is carried out a separate place.A Buddhist wedding is a small affair where few friends and relatives are invited

7. Jain Marriage

Buddhists and Jain can either register their marriage through the Hindu Marriage Act 1955 or through the Special Marriage Act 1954. These are two types of marriage acts that can be used by people of different religions.



Jain Marriage Image Source

Jain marriages have many rituals that are similar to Hindu marriages like pheras and kanyavaran but a number of Pujas and aarti are performed at a Jain marriage. The most important ritual is after the wedding the bride and groom go with their family members to a Jain Temple and feed the poor there.

8. Court Marriage



Court Marriage in India Image Source

Inter-caste and inter-faith marriages are a reality of India. Many people who want to avoid the religious rituals opt for court marriage under the Special Marriage Act 1954. The registrar is given a 30 day notice with residential and birth details of the bride and groom. Then on the day fixed they have to be present at the registrar's office with three witnesses to sign on the legal documents and read the vows.

9. Mixed marriages



In case of inter-faith marriages many brides and grooms follow the rituals of both faiths to solemnize the marriage. These marriages come under the Special Marriage Act 1954 but it is common to see a church wedding taking place in the morning followed by havan in the evening.

In a place like India with such diverse traditions it is inevitable there would be mindboggling rituals and traditional ceremonies. But there are mainly nine types of marriages that are largely solemnized in modern India, about which we just now wrote at length.

RECENT CHANGES IN MARRIAGE,

Though the sacramental aspects of Hindu marriage still tend to persist, marriage as an important social institution has responded to the changing time in the Indian Society. Transformations have been marked in respect of restrictions in marriage, selection of mates, marriage rites and rituals, age at marriage, aim of marriage, parental control in marriage, settlement, stability of marriage, practice of dowry etc. The following are some of the changes in the mode of Hindu marriage.

(i) Change in the exogamic and endogamy rules:

Traditionally in Hindu marriage, while selecting a mate, the exogamic and endogamy principles were adhered to. Whereas the exogamic principle stipulated that one must select his life partner from outside his own group such as the pinda or pravara or gotra, the endogamy rules proclaimed that the Hindus are to select their mates inside their own caste group. Violation of the principle of endogamy attracted punishment amounting to ostracizing and excommunication. But now the situation has entirely changed. The Hindu marriage Act, 1955 has allowed sagotra and sapinda marriage. It has also allowed the cross-cousin marriage where it prevailed customarily. Thus, at present, the exogamic rules have come under strain. Furthermore, the endogamy rules have undergone profound changes. Inter-caste marriages are encouraged by the social reformers and the legal system. Even inducements are given by the government for the practice of inter-caste marriage. The traditional mode of punishment for breaking the endogamy rules has been declared illegal in the changing Indian social scenario. However, this is not to say that the principles relating to caste endogamy and gotra exogamy have become completely extinct, even now these principles are widely followed in Hindu marriage.

(ii) Changes in marriage rites and rituals:

Changes have also been marked in respect of the rites and rituals of Hindu marriage. These rites and rituals envisaged the Hindu marriage as a religious sacrament, which included saptapadi, panigrahana, kanyadana pradakhina, etc. The chanting of Vedic mantras by, the officiating priest also further justified the sacramental character of Hindu marriage. But at present, attempts are on to simplify the rituals and make the marriage rites and rituals precise. Even the rituals and rites are not followed sincerely or rigidly. The Civil Marriage Act of 1954 has made provision for marriages in civil courts. The Arya Samaj and other religious reform movements have made the marriage rituals simple and precise.

(iii) Increase in the age of marriage:
Now-a-days the age of the couple at the time of marriage has gone up. Legally speaking the minimum age for marriage for boys has been fixed as 21 years and for girls as 18 years. Therefore, the occurrence of child marriages has become very rare. This trend has developed due to several reasons. First of all people have become conscious of the bad effects of early marriage.

Secondly, the spread of education and the desire for higher education has engaged the partners in studies. This is common in the case of boys and girls belonging to the higher castes. Thirdly, the boys prefer to settle down first and then go in for marriage. Fourthly, the desire for economic independence in the case of girls may be attributed to the causation of 'late marriage'. .

(iv) Decline of parental control over the arrangement of marriage:
Previously the marriages were settled by the parents or other relatives. Their decision regarding the selection of mates was binding. The life partners had no say in the matter. But now-a-days, in the wake of modernization and with the spread of modern values and modern education boys and girls are inculcating individualism and liberalism. These values enable them to take their own decision in marriage. The parents and relatives now seek their opinion in marriage.

(v) Incidence of widow marriage:
Previously the Hindu widows were not allowed to contract a second marriage. Rather the practice of 'sati' was followed wherein the widow was asked to put an end to her life by burning herself on the funeral pyre of her deceased husband. But now the practice of sati has been abolished with the enactment of law. The Hindu Widow Remarriage Act, 1950 has made provision for remarriage of widows.

(vi) Marriage has become unstable:
Customarily the Hindu marriage was considered a religious sacrament and an indissoluble bond between the spouses. But with the enactment of the Hindu Marriage Act, 1955, the sacramental aspect of the Hindu marriage has been challenged. The Act has made provision for divorce. Women are no longer prepared to put up with injustice meted out to them in the name of family honour. They may seek divorce within the ambit of the Act in order to break the ill-fated marriage. The Marriage Laws Amendment Act has further simplified the provision of divorce. Due to these reasons the Hindu marriage has become brittle and the incidence of divorce is on the increase.

(vii) Changes in the aims of marriage:
The aims of the Hindu marriage have undergone the process of change. In the past, 'dharma' 'Praja' and rati' were considered as the three aims of the Hindu marriage. 'Dharma' was considered the main objective of marriage and it was followed by 'praja' or procreation and 'rati' or sexual pleasure. Thus sex was given the lowest priority in the Hindu marriage. But at present the order of priority, with regard to the traditional aims, has been reversed with rati or sexual pleasure at the top followed by praja and dharma.

(viii) Changes in the considerations in the choice of mate:
The traditional criteria of caste, religion, family background and income are no more considered important in the selection of mates. The emphasis has shifted to the socio-economic status of the bridegroom's family and his education and earning potential. In case of girls, their intelligence, education, capability of household management etc. are taken as the criteria in the selection of mates.

(ix) Change in control of parents over the selection of mates:
The control of parents over the selection of mates in marriage is on the decline. Traditionally, it was the responsibility of the parents or the guardians to arrange marriages for their children and their decision was final and binding even against the wishes of the mates. But the impact of the West spread of modern education and economic independence have enabled the boys and girls to choose their mates according to their own wishes. This has resulted in a number of love marriages.

(x) The emergence of dowry system:
In the past at the time of marriage the parents of a bride offered her jewels and ornaments as a token of their love and affection towards her. But now-a-days, this custom seems to have gradually degenerated into the practice of dowry and it is playing a decisive role in marriage. As a necessary pre-condition of marriage dowry has become a major social problem and this evil is spreading like wild fire in the Hindu society. Non-payment or deferred payment of dowry has resulted in broken marriages, bride burning and bride torturing.

(xi) Prohibition of Polygamy:
The Hindu Marriage Act of 1955 has declared polygamy to be illegal. The law provides that no one can marry a second time while the former spouse is alive. This has brought to an end the age-old practice of marrying several women in order to get a son. Women have now become educated and conscious of their equal rights in marriage

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2.7 Indian Family System

The Indian family system

Changes in the family ideology

Family rights and responsibilities

The ideology of the family consists of all those values and norms that instruct us on how 'ideal' family life should be lived.



1. Ideology provides a justification for the type of institution the family is seen to be in our culture.

2. Most of the time this ideology is 'hidden' in that it is there in our unconscious, but not often brought to consciousness and seriously questioned.

3. Most of the time the ideology assumes the status of 'common sense' or what is 'natural'.

One way in which family ideology is exposed, is when the institution supported by a particular ideology is seen to be at a point of crisis. The family is currently very much the focus of great concern, and it is precisely at times like this that the gap between ideology and lived experience becomes uncomfortably wide and causes strain. A consequence of this is that the ideology itself may come under attack. It is then defended by the status quo against those who wish to dismantle it.

The origin and basis of contemporary family ideology

1. The concept of the family dominant at the present time is a relatively recent creation; it arose during the late 18th century, and then, as now, the ideology describes what 'ought' to be the case and not necessarily what 'is' the case.
2. The ideology is patriarchal, justified by reference to what is seen as 'natural' and in part to scriptural authority. The ideology was devised by and served to mark the middle class off from the decadence of the upper class and the immorality of the working class.
3. With the rise to political power of the middle class it became held up as an ideal to which all, no matter from what class, should aspire, and indeed it became enshrined in state policies. Although this ideology has a clear middle class pedigree it is presented as universal.
4. It is clearly founded on authority, deference and dependence, which are by their very nature unequal. Since it is a conservative ideology, radical movements are seen as both a threat to the family and to have been a consequence of the crisis in the family.

Dominant ideas of family ideology

1. Through motherhood, a woman expresses her natural maternal instincts.
2. Only a stable family can ensure the successful upbringing of children.
3. The predominant family type in western society is the nuclear family.
4. The family is, or should be, warm, intimate and satisfying.
5. Marriage is a companionship, but men are head of household.
6. Women are responsible for domesticity and childcare.
7. Childhood is different from adulthood and children require special care and consideration.

In India the family is the most important institution that has survived through the ages. India, like most other less industrialised, traditional, eastern societies is a collectivist society that emphasizes family integrity, family loyalty, and family unity. C. Hui and H. Triandis21 defined collectivism, which is the opposite of individualism as, “a sense of harmony, interdependence and concern for others”. More specifically, collectivism is reflected in greater readiness to cooperate with family members and extended kin on decisions affecting most aspects of life, including career choice, mate selection, marriage and its continuity.

The Indian family has been a dominant institution in the life of the individual and in the life of the community.22 For the Hindu family, extended family and kinship ties are of utmost importance. In India, families adhere to a patriarchal ideology, follow the patrilineal rule of

descent, are patrilocal, have familialistic value orientations, and endorse traditional gender role preferences. The Indian family is considered strong, stable, close, resilient, and enduring. Historically, the traditional, ideal and desired family in India is the joint family. A joint family includes kinsmen, and generally includes three to four living generations, including uncles, aunts, nieces, nephews, and grandparents living together in the same household. It is a group composed of a number of family units living in separate rooms of the same house. These members eat the food cooked at one hearth, share a common income, common property, are related to one another through kinship ties, and worship the same idols. The family supports the old; takes care of widows, never-married adults, and the disabled; assists during periods of unemployment; and provides security and a sense of support and togetherness.

The joint family has always been the preferred family type in the Indian culture, and most Indians at some point in their lives have participated in joint family living. The beauty about the Indian culture lies in its age-long prevailing tradition of the joint family system. It's a system under which even extended members of a family like one's parents, children, the children's spouses and their offspring, etc. live together. The elder-most, usually the male member is the head in the joint Indian family system who makes all important decisions and rules, whereas other family members abide by it dutifully with full respect. A major factor that keeps all members, big and small, united in love and peace in a joint family system in India is the importance attached to protocol. This feature is very unique to Indian families and very special. Manners like respecting elders, touching their feet as a sign of respect, speaking in a dignified manner, taking elders' advice prior taking important decisions, etc. is something that Indian parents take care to inculcate in their kids from very beginning. The head of the family responds by caring and treating each member of the family the same. The intention behind the formation of any social unit will fail to serve its purpose if discipline is lacking and the same applies to the joint family system as well. Due to this reason, discipline is another factor given utmost importance in the joint family system in India. As a rule, it's the say of the family head that prevails upon others. Incase of any disagreement, the matter is diligently sorted out by taking suggestions from other adult members. One usually also has to follow fixed timings for returning home, eating, etc.

The reason why Indians are proving to emerge as a prosperous lot globally, many researches claim, is because of the significance they attach to the joint family system. All working cohesively to solve a problem faced by any one or more members of the joint family, is what works magic in keeping one tension-free, happy and contended even in today's highly competitive environment. An Indian may be a top corporate honcho or a great sportsperson or a movie actor and so on in a particular professional field, but all these accomplishments relegate to the backseat when at home. With the advent of urbanisation and modernisation, younger generations are turning away from the joint family form. Some scholars specify that the modified extended family has replaced the traditional joint family, in that it does not demand

geographical proximity or occupational involvement and does not have a hierarchal authority structure.

This new family form encourages frequent visits; financial assistance; aid and support in childcare and household chores; and involvement and participation in life-cycle events such as births, marriages, deaths, and festival celebrations. The familial and kinship bonds are thus maintained and sustained. Even in the more modern and nuclear families in contemporary India, many functional extensions of the traditional joint family have been retained, and the nuclear family is strongly embedded in the extended kinship matrix. In spite of the numerous changes and adaptations to a pseudo-Western culture and a move toward the nuclear family among the and upper classes, the modified extended family is preferred and continues to prevail in modern India.

India is an extremely pronatalistic society, and the desire to have a male child is greatly stressed and is considered by some to be a man's highest duty, a religious necessity, and a source of emotional and familial gratification. Because male children are desired more than female children, they are treated with more respect and given special privileges. Male children are raised to be assertive, less tolerant, independent, self-reliant, demanding, and domineering.28 Females, in contrast, are socialised from an early age to be self-sacrificing, docile, accommodating, nurturing, altruistic, adaptive, tolerant, and religious, and to value family above all.29 In rural areas, low-income women have always worked outside the home. In urban areas, there has been a substantial increase in the number of middle- and upper-class women working to supplement their husbands' incomes. In a traditional Indian family, the wife is typically dependent, submissive, compliant, demure, nonassertive, and goes out of her way to please her husband. Women are entrusted with the responsibility of looking after the home and caring for the children and the elderly parents and relatives.

Child rearing practices in India tend to be permissive, and children are not encouraged to be independent and self-sufficient. The family is expected to provide an environment to maximise the development of a child's personality and, within the context Hindu beliefs and philosophy, positively influence the child's attitudes and behaviours.Adolescence and young adulthood are particularly stressful and traumatic stages in the lives of Indian youths. In one way, they desire emancipation and liberation from family but residing in the matrix of the extended family makes it difficult for them to assert themselves and exhibit any independence in thought, action, or behaviour. Social changes are gradually occurring but arranged marriages are still the norm, and dating generally is not allowed. Furthermore, sex and sexuality issues are not openly discussed, sex education is not readily available, interrelationships with the opposite sex are discouraged, and premarital sex is frowned upon. In the traditional Indian family, communication between parents and children tends to be one-sided. Children are expected to listen, respect, and obey their parents. Generally, adolescents do not share their personal concerns with their parents because they believe their parents will not listen and will not understand their problems.

2.9 FAMILY RIGHTS AND RESPONSIBILITIES

If you are married, or if you have been in a common-law relationship for two years or more, you have legal rights and responsibilities about caring for children and caring for each other.

Right to Access

In some cases, one parent will have *sole custody*. In this arrangement, the child lives with one parent most of the time. The responsibilities for taking care of the child and making decisions about the child belong to that parent (also referred to as the custodial parent). The other parent, however, still has *access* to the child and the right to certain important information about the child such as medical information. Custodial parents must act in accordance to the *Divorce Act.* This means that they must act in a way that encourages the child in his or her relationship with the other parent.

Child Support

The law says that both parents must support their children financially, even when the marriage breaks down. In BC, this legal responsibility to support a child usually lasts until your child is 19. If your child remains a dependent after that age, the obligation may continue. If a child is living with one parent, the other parent usually must pay support money. Parents must follow rules called the Child Support Guidelines. The Guidelines help set a fair amount of support for children. The Guidelines consider such things as how much money the parent makes and how many children need support. The Child Support Guidelines make sure that children continue to benefit from the financial means of both parents.When you are deciding on how much financial support the child needs, you must follow the Child Support Guidelines, at a minimum. If you and the other parent can't agree, you may have to go to court, where a judge will apply the Child Support Guidelines.

What if a Parent Refuses to Pay Child Support?

The provincial government has a program called the Family Maintenance Enforcement Program. The people who work in this program can help if a parent is not paying the money the judge said he or she must pay to support the children, or the money that he or she agreed in writing to pay.If a parent does not pay child support, the Family Maintenance Enforcement Program may take the money directly from the parent's pay cheque or bank account. Other things that may happen if a parent refuses to pay:

- He or she may lose his or her driver's licence
- The Canadian government may take away his or her passport

Wife Assault is a Crime

One woman in 10 in Canada is beaten by a husband or partner. All kinds of men beat women: rich men and poor men, immigrant men and Canadian men.

When one person beats another person, it is a crime. The crime is called assault. It doesn't make any difference if the people are living together. Wife assault is a crime.If someone complains to the police, such as a neighbour, a relative, or the victim, the police will arrest the man or take the woman to a safe place. A transition house is a safe place. A woman can stay there for up to a month. It is free. For information about the transition house in your community, phone Vancouver and Lower Mainland Multicultural

Children Need Protection

Sometimes parents don't take care of children (all those under the age of 19). Maybe they leave the children alone, or hurt them or don't give them enough food.The law says that if a neighbour, a teacher, a doctor, or a relative knows about this, they must phone a social services office. Then a social worker will visit the family to check on the child. If the social worker thinks that the child is in danger, the social worker can remove the child from the home to a safe place. The social worker and the parents will have to go to court. The social worker has to prove in court that the child was in danger.The parents have the right to argue that their child should not be taken away from them. The parents should have a lawyer. If they can't afford a lawyer, they should go to a Legal Services Society office before the first court hearing. The law is to protect children. The judge has to decide if the child needs protection. Then the judge will decide what will happen to the child.

Help for Children

Sometimes adults hurt children. Parents, relatives, or other people hit or beat a child. Sometimes an adult does sexual things to a child. This is a form of child abuse. It is against the law.

NORMATIVE FUNCTIONS OF FAMILY AND MARRIAGE

Family is one of the main socialising institutions of the society. Since ancient times, the family has been the most important child care institute in India as children are expected to grow under the glory of family where a satisfactory rearing of child is ensured. According to Pope – "the family is more sacred than the State." It was pointed out by Will and Ariel Durant that the family is nucleus of civilisation. The universal declaration of human rights prescribes the family as the natural and fundamental unit of society. Family is virtually a social organisation or a unit of men and women out of relationship.

The importance of family lies in bringing up the child to a full man in the family atmosphere. It has been a time honoured belief in our culture that the child is a gift of God that must be nurtured with care and affection within the family and society as a future dawn. As per Confucius-the strength of a Nation is derived from the integrity of its homes. It is the

famous saying that a comfortable home is a great source of happiness. It ranks immediately after health and good conscience as aptly said by Byron. Without loving heart there is no meaning for home. The purpose of this chapter is to describe the theoretical framework of this research by defining family and giving insight into the Indian family system.

2.10 SOCIAL CHANGE AND CHANGE IN THE FAMILY AND MARRIAGE FUNCTIONS

Change is an universal phenomena i.e. it is a law of native. There's always a change in nature. Society is a part of nature & so society also changes & static society is unthinkable. Society is on the wheel of change, which may occur due to various factors (like demography, ideas etc. If there is any change in Technology etc there's change in society) out the change varies in speed & farm.

In some places the change is rapid whereas in other places it may be slow. These days due to industriation & urbanization the change is rapid as compared to earlier times. The form may be economic, political, social (instriation) religious (instriation), change in any part of society affects all the other parts of society. Eg. An individual is the fundamental unit of society & there's change in the life of the individual which is called evolutionary process of social change (birth to death). This is a slow process.

2.11 DEFINITION OF SOCIAL CHANGE

Ginsberg (By social change I understand a change in the social structure).
Kingsley Doris "By social change is meant only such alternations as occur in social organization i.e. the structure & functions of society".
Merril & Elbridge "Social change means, that large no. of persons are engaging in activities that differ from those which they or their immediate fore-fathers engaged in some time before."
Gillin & Gillin "Social changes are variations from the accepted mode of life, whether due to alteration in geographical condition, in cultural equipment, composition of the population. Or ideologies & whether brought about by diffusion or inventions within the group." Jones' "Social change is a term used to describe variations in or modification of any aspect of social process, social patterns, social interaction or social organization."

Characteristics of Social change

- Social change is universal or it is an essential law.
- Change with diff. in speed & form simple society … change was slower.
- Change is unpredictable in general Revol is a process of social change. What speed & in what form the change takes place is not easily predictable.
- Social change is change in community
- Social change generally changes in direction

. There are 3 patterns of social change.

i. linear failure change generally leads to progress (change for good) can't cycle –car – train –plain
ii. Fluctuating change – the change may be upward & downward. The demographic change is such also economic change,
iii. Cyclical change – the change is in a cycle. Fashion, sometimes also in economical aspect (Karl max gave this idea. He says earlier there was no private property & we may go back to it).

Factors of Social change

Biological
Demographic factors – Population plays an important role in society it there is change in the composition of pop there is change in society by composition we mean the structure i.e. sex ratio. For balance in society the sex ratio should be and if there is change in the ratio there is change in society if there are more females than the status & position goes down (because in Polygene more wives & the hubby now their status goes down). In the other case the females position rises. The bride –price increases (in the tribunal society).
Age group – childhood, adulthood, old age. If the population of children is most then increase of population will be slower. If adults more than there will be rapid change in society cause they are the most regulative. In case of old more there is conflict in society they don't wish forchange. Marital status in production of children.

Immigration & Emigration – 1 is coming into country, 2 – going out of the country. Causes cultural problems leads to over population. 2 – Brain – drain is the problem.

- Natural factors – now native affect society – National calamities, floods, epidemics affairs society in its social relationships (i) structure. People become selfish as during scarcities they are more bothered feeding themselves.
- Technological factors
  i. Mechanization & social change – machines bring about this gave women the chance to work gave rise to women's tib.
  Unemployment & such problems arose these affected cottage industries.
  ii. Urbanization – changed job opportunities. Transport gave rise is social contacts. Communication gives rise to greater awareness & is beans of recreation too.
  Atomic Energy & change
- Cultural Factors
- Write about concept of cultural tag by w.f Ougbourn book – social change brings change. He says material & non – material change. Usually non-material can't cope up with material changed & gives rise to cultural lag.

Change in values ideas & custom's changes society (Habits).
In handbook of Sociology, he said if may so happen that material behind education, unization etc., too brings change in marriage system etc.

Marxian theory of social change i.e. Technological Deterministic theory. On interpretative theory – change according to him is inevitable & a continuous process. He has given more important to the economical factors. He says if there is change in economy the only tractor my (changes of demography etc affect the individuals) there is change in society – change n the production system i.e. change in technology because it is due to change in technology that these's change in production that's why his theme is called technological data. Two change in production system. Has two aspect productive forces & productive relations – this is due to change in technology productive apparatuses, labour & production experience & labour still ?productive faces. Productive relations ? Capitalists & labourers (master & slaves).

Family:

Technology has radically changed the family organisation and relation in several ways.Firstly, small equalitarian nuclear family system based on love, equality, liberty and freedom is replacing the old, authoritarian joint family system. Due to invention of birth, control method, the size of family reduced.

- Secondly, Industrialisation destroying the domestic system of production has brought women from home to the factories and office. The employment of women meant their independence from the bondage of man. If brought a change in their attitudes and ideas. It meant a new social life for women. It consequently affected every part of the family life.

- Thirdly due to technology, marriage has lost its sanctity. It is now regarded as civil contract rather than a religious sacrament. Romantic marriage, inter-caste marriage and late marriages are the effects of technology. Instances of divorce, desertion, separation and broken families are increasing.

- Lastly, though technology has elevated the status of women, it has also contributed to the stresses and strains in the relations between men and women at home. It has lessened the importance of family in the process of socialisation of its members.

- Religion:
- Technology has effected wide range of changes in our religious life. Many religious practices and ceremonies which once marked the individual and social life, have now been abandoned by them. With the growth of scientific knowledge and modern education, the faith of the people in several old religious beliefs and activities have shaken.

- Economic life:

- The most striking change due to technological advance, is the change in economic organisation. Industry has been taken away from the household and new types of economic organisation like factories, stores, banks, joint stock companies, stock-exchanges, and corporation have been setup. It has given birth to capitalism with all its attendant evils.

- Division of labour, specialization of function, differentiation and integration all the products of technology. Though it has brought in higher standard of living, still then by creating much more middle classes, it has caused economic depression, unemployment, poverty, industrial disputes and infectious diseases.

- Effects on State:
- Technology has affected the State in several ways. The functions of the State has been widened. A large number of functions of family, such as educative, recreation, health functions have been transferred to the State.

- The idea of social welfare State is an offshoot of technology. Transportation and communication are leading to a shift of functions from local Government to the Central Government. The modern Government which rule through the bureaucracy have further impersonalised the human relations.

- Social life:
- Technological innovations have changed the whole gamut of social and cultural life. The technological conditions of the modern factory system tend to weaken the rigidity of the caste system and strengthen industrializations. It has changed the basis of social stratification from birth to wealth. Urbanization, a consequence of technological advance, produces greater emotional tension and mental strain, instability and economic insecurity.

- There is masking of one's true feelings. Socially, the urbanites are poor in the midst of plenty. "They feel lonely in the crowd". On all sides, one is confronted with "human machines which possess motion but not sincerity, life but not emotion, heart but not feelings". Technology has grown the sense of individualism. It has substituted the 'handi work' with 'head work'.

- It is clear from the above explanation that technology has profoundly altered our modes of life and also thought. It is capable of bringing about vast changes in society. But is should not be considered as a sole factor of social change. Man is the master as well as a servant of the machine. He has the ability to alter the circumstances which have been the creation of his own inventions or technology.

- Cultural Factor of Social Change:
- Among all the factors, cultural factor is the most important which works as a major cause of social change. Culture is not something static. It is always in flux. Culture is not merely responsive to changing techniques, but also it itself is a force directing social change.

- Culture is the internal life forces of society. It creates itself and develops by itself. It is men who plan, strive and act. The social heritage is never a script that is followed slavishly by people. A culture gives cues and direction to social behaviour.

- Technology and material inventions may influence social change but direction and degree of this depends upon the cultural situation as a whole. "Culture is the realm of final valuation". Men interpret the whole world. He is the master as well as the servant of his own inventions or technology.

- To employ Maclver's simile, technological means may be represented by a ship which can set sail to various ports. The port we sail to remains a cultural choice. Without the ship we could not sail at all. According to the character of the ship we sail fast of 'slow, take longer or shorter voyages.

- Our lives are also accommodated to the conditions on ship board and our experiences vary accordingly. But the direction in which we travel is not predestinated by the design of the ship. The port to which we sail, the direction in which we travel, remains totally of a cultural choice.

- It should be noted that technology alone cannot bring vast changes in society. In order to be effective "The technology must have favourable cultural support". When the cultural factor responds to technological change, it also reacts on it so as to influence the direction and character of social change.

- It may be noted that culture not only influences our relationship and values but also influences the direction and character of technological change. For example, different countries like Great Britain, Soviet Union, U.S.A. and India may adopt the same technology, but in so far as their prevalent outlook on life differs, they will apply it in different directions and to different ends.

- The atomic energy can be used for munition of war and for production purposes. The industrial plant can turn out armaments or necessaries of life. Steel and iron can be used for building purposes and for warships. Fire can be used for constructive and destructive purposes.or a better understanding of the relationship between culture and technology, let us analyse here the concept of "cultural lag".

Cultural Lag:The concept of 'cultural lag', has become a favourite one with sociologists, it is an expression that has a particular appeal in an age in which inventions discoveries and innovations of many kinds are constantly disturbing and threatening older ways of living. In this context, it will serve also to introduce the principle that cultural conditions are themselves important agencies in the process of social change.The concept of 'cultural lag' was first explicitly formulated by W.F. Ogburn in his treaties entitled 'Social Change'. Lag means crippled movement. Hence, 'cultural lag' means the phases of culture which fall behind other phases that keep on moving ahead.

Ogburn's idea of 'cultural lag' is perhaps one of the most important concept influencing the fact of discussion regarding technology and social change. Ogburn distinguishes between "material" and 'non-material' culture.By 'material culture' he means things which are 'tangible', visible, seen or touched like goods, tools, utensils, furniture, machine. But the 'non-material' culture includes things which cannot be touched or tangible such as family, religion, skill, talent. Government and education etc.According to Ogburn, when changes occur in 'material culture', those in turn stimulate changes in 'non-material' culture, particularly in what he terms the 'adaptive' culture. According to Ogburn, material culture changes by a process which is different in pace from changes in non-material culture.

The larger the technological knowledge of a society, the greater the possibility of a new combinations and innovations. Thus, material culture tends to grow exponentially. Because society cannot develop methods of controlling and utilizing new technology before the technology is accepted and used. There exists a "cultural lag" in creating controls and altering social relationship related to new conditions brought about by new technology.Cultural lag is due to man's psychological dogmatism. He is wedded to certain ideologies regarding sex, education and religion. On account of his dogmatic beliefs and ideologies, he is not prepared to change his social institutions. The failure to adopt social institutions to the changes in the material culture leads to cultural lag.But Maclver points out that "unfortunately it is often adopted without adequate analysis and consequently it has not been developed in a clear and effective manner. According to him, the distinction is not a workable one. Nor again should be assumed that, it is always the 'material' or that the main problem is one of adapting the 'non-material' to the 'material' culture.

Maclver also observes that the term 'lag' is not properly applicable to relations between technological factors and the cultural patterns or between the various components of the cultural pattern itself. He has used different words like, 'technological lag', 'technological restraint', for the resulting imbalance in the different parts of culture.Kingsley Davis, in his 'Human Society' holds that the aspect of culture cannot be divided into material and non-material and that this distinction in no way helps us to understand the nature of technology. Other sociologists, Sutherland, Wood Ward and Maxwell, in their book 'Introductory Sociology' point

out that Ogburn is guilty of over simplifying the processes of social change.

Social change is a complex phenomenon. The rate, speed and direction of social change is not the same everywhere. So it cannot be explained by simply saying that change first takes place in material culture and thereafter in non-material culture. Ogburn has taken an over simple materialistic view of society.In spite of various shortcomings, Ogburn's theory of cultural lag has been proved to be beneficial for the understanding of the cultural factor in bringing about social change. It has been acknowledged by all that there is an intimate connections between the technological advance and our cultural values.Hence, we may note here that our culture, our thoughts, values, habits are the consequences of technological changes; the latter also is the consequences of changes of the former. Both technology and cultural factors are the two important sources of social change. The two are not only interdependent but also interactive. Man does not simply want a thing but he wants a thing which may also be beautiful and appealing to his senses.

It is the culture which has kept the social relationship intact. It makes people think not of their own but also of the others. Any change in cultural valuation will have wider repercussion on the personality of the individual and the structure of the group. Every technological invention, innovation, new industrial civilization or new factor disturbs an old adjustment.The disturbance created by mechanism was so great that it seemed to be the enemy of culture, as indeed all revolutions seem. The wealth-bringing machine brought also, ugliness, shoddiness, haste, standardization. It brought new hazards, new diseases, and industrial fatigue.

That was not the fault of the machines and power plants. It was due to the ruthlessness and greed of those who controlled these great inventions. But human values or cultural values reasserted themselves against economic exploitation. Culture began, at first very slowly, to redirect the new civilization. It made the new means of living at length more tractable to the uses of personality and new arts blossomed on the ruins of the old.

To conclude, social systems are directly or indirectly the creation of cultural values. So eminent sociologist Robert Bierstedt has rightly remarked, "What people think, in short, determines in every measure… what they do and what they want". Thus, there a definite relation is a definite relation between changing beliefs and attitudes and changing social institutions. So Hobhouse says, there is "a broad correlation between the system of institutions and mentally behind them".

Demographic Factor of Social Change:

The demographic factor plays the most decisive role in causing social change. The quantitative view of demography takes into account the factors that determine the population: its size, numbers, composition,

density and the local distribution etc.The population of every community is always changing both in numbers and in composition. The changes in population have a far-reaching effect on society. During the 19th century, the population of most countries of Western Europe fell down. During the same time also, the death rate of these countries declined. This double phenomenon is unprecedented in the history of man.Population changes have occurred all through human history. It is due to various reasons such as migration, invasion, and war, pestilence, changing food supply and changing mores. There was depopulation and overpopulation in times past. The swift and steady decline of both the birth rate and death in the past 70 years or so witnesses to a great social transformation.

In a society where the size or number of female children is greater than the number of male children, we will find a different system of courtship, marriage and family disorganisation from that where the case is reverse. Women command less respect in that community where their numbers are more.It has always been recognised that there exists a reciprocal relation between population and social structure. The social structure influences population changes and is affected by them. It is beyond doubt that economic conditions and population rates are interdependent. Increasing 254 Social Change interaction results from an increase in the size and density of population. Increase in population also leads to an increase of social differentiation and a division of labour.With the changes in size, number and density of population, changes take place in composition. The most important reasons for the contemporary population explosion are the tremendous technological changes on the one hand and a most spectacular advance in controlling the diseases by science and preventive medicines on the other hand.

Advancement in science and technology is indirectly boosting the world population by delaying the death rate. For example, take the case of 'Malaria'. This disease was responsible for the death of million of people in India and other countries.But it has now been completely eliminated by destroying the malaria carrying mosquitoes with the use of pesticides. Surgery too has advanced so much today. The vital organs of human body such as kidney and heart can be transplanted or replaced when worn out.

The growth of population has given birth to a great variety of social problems such as unemployment, child labour, wars, competition and production of synthetic goods. It has led to urbanization with all its attendant evils.Countries with growing population and relatively limited resources have an incentive to imperialism and to militarism. These attitudes in turn, encourage a further increase of population. Increase in population threatens the standards of living and thus inspires a change of attitude.Due to unprecedented growth of population in the 19th century, the practice of birth control took a new development. This practice (use of contraceptive), in turn, had many repercussions on family relationships and even on attitudes towards marriage.With a change in population, there is also a change in a pattern of 'consumption'. Societies having large number of children are required to spend relatively large amounts of

money on food and education. On the other hand, societies with large proportions of elderly people have to spend relatively more amount on medical care.In some cases, population changes may initiate pressures to change political institutions. For example, changes in the age, sex or ethnic composition of a people of then complicates the political process of country.Besides, there is a close relationship between the growth of population and the level of physical health and vitality of the people. Because there are many mouths to feed, none gets enough nutritious food to eat, as a result chronic malnutrition and associated diseases become prevalent. These, induce physical incompetence, apathy and lack of enterprise. Due to these people's low level of physical well-being, they are socially backward and unprogressive. They show their indifference to improve their material welfare. An underfed, disease-ridden people are lethargic people. Moreover, if the growth of population is checked, it would mean a higher standard of living, the emancipation of women from child-bearing drudgery, better care for the young and consequently a better society. Demographers have shown that variation in the density of population also affects nature of our social relationship. In a low population density area, the people are said to exhibit a greater degree of primary relationship whereas in the area of high density of population, the relationship between people is said to superficial and secondary. In the opinion of Worth, high density areas witness the growth of mental stress and loneliness of life.

The importance of demography as a factor of social change has been realised by various sociologists and economists. An eminent French sociologist, Emile Durkheim, went on to the extent of developing a new branch of sociology dealing with population which he called "Social Morphology" which not only analyses the size and quality of population but also examine how population affects the quality of social relationships and social groups.Durkheim has pointed out that our modern societies are not only characterised by increasing division of labour but also specialisation of function. The increasing division of labour and specialization of function have a direct correlation with the increasing density of population. He stresses on the fact that in a simple society with comparatively lesser number of people, the necessity of complex division of labour is less felt.

This society, according to Durkheim, is based on "mechanical solidarity". But as the groups grow in size and complexity with the increase in population, the "services of the experts" are more required. The society, according to him, moves towards "organic solidarity". There is, so to say, a drift from mechanical to organic solidarity.M. David Heer, in his book "Society and Population", has developed a "theory of demographic transition". The theory was popularised just after the end of World War-II. It has provided a comprehensive explanation of the effects of economic development both on fertility and mortality decline.Schneidar and Dornbusch, in their book "Popular Religion", have pointed that decline in mortality rate evokes several changes in social structure. They have stressed on the point that due to decline in mortality rate in USA

since 1875, negative attitude towards religious beliefs have been cultivated by the people.

They also point out that in a society wherein children die before reaching the age of five, parents may not develop a strong emotional attachment to their children and also in a high mortality society, arranged marriages are common, but in a low mortality society love marriages become the dominant feature. Again when mortality rate is high, individual tends to have a weaker orientation towards the future and stronger orientation towards the present.Thomas Robert Malthus, an English cleargyman, mathematician and economist, was one of the earliest demographers. In his work, "An Essay on the Principles of Population", published in 1978, he mentioned that under normal conditions, population would grow by geometrical progression, whereas the means of subsistence would grow by arithmetical progression. The imbalance or lag or gap between the two would create a lot of problems for society.

That is why, Malthus has pleaded for two types of checks which can keep the population down. He spoke of hunger and disease as positive check, and late marriage and enforced celibacy as the preventive check.From the above analysis, we find that demographic factor has been contributing to the great transformations in society's socioeconomic and political structure throughout human history. For example, most countries in Asia where more than half world population is now living, is characterised by high birth rate. These countries in general and Indian society in particular, are passing through a critical period of great poverty, unemployment and moral degeneration.The gap between the living standards of general masses of these countries and that of the developed countries is widening. The gap is cruelly frustrating the third world country's hopes for development.With the current rate of population increase, it is expected that the total requirements for future health, education, housing and many other welfare needs are bound to increase. This will certainly bring the drastic changes not only in the microstructures, but also in macrostructures of Indian society.

Changes in the Institution of Marriage Family and marriage are considered to be the oldest and the most basic and fundamental institutions in the sub-systems of the society. Both are important for the existence and functioning not only of society, but also for the sustenance and continuation of human being. The concept of marriage varies in degree from community to community and nation to nation. Marriage is not merely a social chanalisation of instinctive impulses and motivations but it is a live social bondage. According to Horton and Hunt (1964: 206), "Marriage is the approved social pattern, whereby two or more persons establish a family". Marriage as a socially sanctioned union of male and female, is an institution devised by society to sanction the union and mating of male and female for purposes of (a) establishing a household (b) entering into sex relations, (c) procreating and (d) providing care for the offspring.

It is an old saying that marriage is a necessary evil because it completely changes the life style of human being, particularly of woman, as she surrenders even her own identity. Still everybody wishes to marry because remaining single is not being encouraged by the society. By the time a girl attains the age of 25 or 26, society expects her to have settled in life. If a girl remains unmarried a lot of suspicion regarding her character and temperament begins to plague the mind of people. Marriage is a deeply established, ingrained and persistent social expectation for any Indian woman. Marriage and motherhood are two important cultural indicators that metamorphose the girl into an acceptable suitable womanhood. It is believed that marriage is central to womanhood. In fact, women establish her female identity through marriage. She is expected not only to be a wife but also a mother, the ultimate, expression of her womanhood. As wife and mother, she is expected to keep the interests of her husband and children above her own. She commands respect and honor only to the extend she excels in her role as a mother and wife. Besides, she needs her husband and children for her own being and becoming. Finally, a woman believes that her children and husband needs her.

2.12 Let us sum up

In this chapter, an introductory theme, definition and meaning of family is presented. Indian family system and contemporary changes affecting the family structure in India in terms of disturbed family, changes in marital status, and problems of children are addressed in detail.The basic unit of the Indian society is patrilineal family unit and wider kinship groupings. The most widely desired residential unit is the joint family, ideally consisting of three or four patrilineally related generations, all living under one roof. Due to the continuous and growing impact of urbanization and westernisation, nuclear family has now become the characteristic feature of the Indian society. The phenomenon of male headed households has now been transforming into female-headed ones. Another noticeable change in the Indian family system is dissolution of marriages and the number of divorce cases is slowly mounting day by day. Increasing domestic violence has been reported in India, as a result of family fragmentation and loss of social support systems in marriage. The major influence that has been cast by the changes in all spheres of the society is on children leading to child labour, trafficking and other forms of abuse. Poverty is the main factor among all the reasons behind all such negative occurrences making their lives miserable. At the same time, children of well-to-do families are also experiencing several problems in terms of lack of attention from their busy parents and a great strain from high expectations to excel in the competitive world.Despite the continuous and growing impact of urbanization and westernization, the traditional joint household, both in ideal and in practice, remains the primary social force among Indians and joint family- an ancient Indian institution is the most widely desired residential unit. But it has undergone some change in the late twentieth century due to variety of

reasons, including the need for some members to move from village to city, or from one city to another for employment opportunities. As the Indian family and their mind set up is not well prepared to fast growing and ever changing present competitive and challenging world, this change in societal norms and lifestyle are becoming a threatening to Indian family structures with increase in several socio-psychological problems. Further, it is being speculated that half of the Indian populations will be living in urban area by the end fourth decades of this 21st century.

2.13 Unit –End Exercises

Examine the various features of family and Marriage

Analyse the functions of marriage and Family

Narrate the rights and responsibilities of Family

Evaluate the social change and change in family and Marriage

2.14 Answer To Check Your Progress

CHARACTERISTICS OF FAMILY:

1. Family is a Universal group. It is found in some form or the other, in all types of societies whether primitive or modern.

2. A family is based on marriage, which results in a mating relationship between two adults of opposite sex.

3. Every family provides an individual with a name, and hence, it is a source of nomenclature.

Family is the group through which descent or ancestry can be traced.

5. Family is the most important group in any individual's life.

6. Family is the most basic and important group in primary socialization of an individual.

7. A family is generally limited in size, even large, joint and extended families.

8. The family is the most important group in society; it is the nucleus of all institutions, organizations and groups.

9. Family is based on emotions and sentiments. Mating, procreation, maternal and fraternal devotion, love and affection are the basis of family ties.

10. The family is a unit of emotional and economic cooperation.

11. Each member of family shares duties and responsibilities.

12. Every family is made up of husband and wife, and/or one or more children, both natural and adopted.

13. Each family is made up of different social roles, like those of husband, wife, mother, father, children, brothers or sisters.

CHARACTERISTICS OF MARRIAGE:
Marriage may have the following characteristics.

(1) Marriage is a universal social institution. It is found in almost all societies and at all stages of development

(2) Marriage is a permanent bond between husband and wife. It is designed to fulfill the social, psychological, biological and religious aims.

(3) Marriage is a specific relationship between two individuals of opposite sex and based on mutual rights and obligations. Relationship is enduring.

(4) Marriage requires social approval. The relationship between men and women must have social approval. Without which marriage is not valid.

(5) Marriage establishes family. Family helps in providing facilities for the procreation and upbringing of children.

(6) Marriage creates mutual obligations between husband and wife. The couple fulfill their mutual obligations on the basis of customs or rules.

(7) Marriage is always associated with some civil and religious ceremony. This social and religious ceremony provides validity to marriage. Though modern marriage performed in courts still it requires certain religious or customary practices.

(8) Marriage regulates sex relationship according to prescribed customs and laws.

(9) Marriage has certain symbols like ring, vermillion, special cloths, special sign before the house etc.

Functions of Family:
As a social group and as an important social institution, family performs various functions that are as follows:

1. Family is a unit through which procreation takes place. Marriage sanctions sexual relationships, and it also establishes a family, which is further reinforced with the birth of children.

2. The process of reproduction is institutionalized, regulated and controlled in a family. The family legitimizes the act of reproduction.

3. Family helps in propagation of human species and perpetuation of human race.

4. Family provides an individual with an identity.

5. It is through the family that every family name is carried on from one generation to another.

6. Family is responsible for the production and upbringing of children.

7. Family is an important agent of socialization. The primary socialization of any individual takes place within the family. The immediate family members teach all the basic rules and norms of social life to a child.

8. Family is also an important agent of cultural transmission. Culture is transmitted from one generation to another through family. All the aspects of culture are learnt within the family structure.

9. Family is a great source of strength, emotional and psychological, for its members. All the members are aware that they can depend upon their family in the times of need.

10. Family provides an individual with a home, and establishes enduring social relationships.

11. The family is the basis of division of labour, where all members have their duties and obligations towards each other.

12. A family fulfills the economic needs of its members. This function has undergone transformation, with families moving from being production and consumption units in earlier times, to becoming more of consuming units rather than a producing one. Now-a-days, members of a family no longer produce things themselves; rather, they go out and work for some monetary remuneration or wages.

13. Family is traditionally responsible for the education of the children.

14. Family also has a recreational function. Earlier, most recreation was family- based. Family gatherings during festivals, functions, family reunions, marriages, brought entire families together. Now-a-days, taking

family members out on holidays or for movies, plays, dinners, or parties, etc., perform the same function.

Major Functions of Marriage,

The major functions of marriage may be discussed under the following heads:
Biological Functions:
Marriage regulates and socially validates sexual relations between males and females. It is the means to satisfy sexual desire of human beings for reproductive process. So the institution of marriage fulfils the biological function of human beings.

Economic functions:
Marriage of men and women create family in which men and women share their labours to satisfy the economic needs of the family members. Both male and female remain engaged in economic activities through the institution of marriage for the economic upliftment of the family.

Social functions:
Through marriage new Kinsmen are acquired because spouses relative are added to one's own group of Kin. The institution of marriage also enables the society to assign to the parents their responsibility of socializing the child by transforming social customs and social regulations.

Educational Functions:
The institution of marriage educates the young to be responsible future parents to pass the culture from one generation to another Thus marriage performs the most sacred biological function that-gives rise to the family system. Apart from this it performs a number of social, cultural, educational and economic functions.

Family Rights and Responsibilities.

If you are married, or if you have been in a common-law relationship for two years or more, you have legal rights and responsibilities about caring for children and caring for each other.

Right to Access
In some cases, one parent will have *sole custody*. In this arrangement, the child lives with one parent most of the time. The responsibilities for taking care of the child and making decisions about the child belong to that parent (also referred to as the custodial parent). The other parent, however, still has *access* to the child and the right to certain important information about the child such as medical information. Custodial parents must act in accordance to the *Divorce Act.* This means that they must act in a way that encourages the child in his or her relationship with the other parent.

Child Support

The law says that both parents must support their children financially, even when the marriage breaks down. In BC, this legal responsibility to support a child usually lasts until your child is 19. If your child remains a dependent after that age, the obligation may continue. If a child is living with one parent, the other parent usually must pay support money. Parents must follow rules called the Child Support Guidelines. The Guidelines help set a fair amount of support for children. The Guidelines consider such things as how much money the parent makes and how many children need support. The Child Support Guidelines make sure that children continue to benefit from the financial means of both parents.

When you are deciding on how much financial support the child needs, you must follow the Child Support Guidelines, at a minimum. If you and the other parent can't agree, you may have to go to court, where a judge will apply the Child Support Guidelines.

What if a Parent Refuses to Pay Child Support?

The provincial government has a program called the Family Maintenance Enforcement Program. The people who work in this program can help if a parent is not paying the money the judge said he or she must pay to support the children, or the money that he or she agreed in writing to pay.

If a parent does not pay child support, the Family Maintenance Enforcement Program may take the money directly from the parent's pay cheque or bank account. Other things that may happen if a parent refuses to pay:

- He or she may lose his or her driver's licence
- The Canadian government may take away his or her passport

Wife Assault is a Crime

One woman in 10 in Canada is beaten by a husband or partner. All kinds of men beat women: rich men and poor men, immigrant men and Canadian men.When one person beats another person, it is a crime. The crime is called assault. It doesn't make any difference if the people are living together. Wife assault is a crime.

If someone complains to the police, such as a neighbour, a relative, or the victim, the police will arrest the man or take the woman to a safe place. A transition house is a safe place. A woman can stay there for up to a month. It is free. For information about the transition house in your community, phone Vancouver and Lower Mainland Multicultural

Children Need Protection

Sometimes parents don't take care of children (all those under the age of 19). Maybe they leave the children alone, or hurt them or don't give them enough food.

The law says that if a neighbour, a teacher, a doctor, or a relative knows about this, they must phone a social services office. Then a social worker will visit the family to check on the child. If the social worker thinks that

the child is in danger, the social worker can remove the child from the home to a safe place. The social worker and the parents will have to go to court. The social worker has to prove in court that the child was in danger.

The parents have the right to argue that their child should not be taken away from them. The parents should have a lawyer. If they can't afford a lawyer, they should go to a Legal Services Society office before the first court hearing. The law is to protect children. The judge has to decide if the child needs protection. Then the judge will decide what will happen to the child.

Help for Children

Sometimes adults hurt children. Parents, relatives, or other people hit or beat a child. Sometimes an adult does sexual things to a child. This is a form of child abuse. It is against the law.

Change in the exogamic and endogamy rules:
Traditionally in Hindu marriage, while selecting a mate, the exogamic and endogamy principles were adhered to. Whereas the exogamic principle stipulated that one must select his life partner from outside his own group such as the pinda or pravara or gotra, the endogamy rules proclaimed that the Hindus are to select their mates inside their own caste group.

Violation of the principle of endogamy attracted punishment amounting to ostracizing and excommunication. But now the situation has entirely changed. The Hindu marriage Act, 1955 has allowed sagotra and sapinda marriage. It has also allowed the cross-cousin marriage where it prevailed customarily. Thus, at present, the exogamic rules have come under strain. Furthermore, the endogamy rules have undergone profound changes. Inter-caste marriages are encouraged by the social reformers and the legal system. Even inducements are given by the government for the practice of inter-caste marriage. The traditional mode of punishment for breaking the endogamy rules has been declared illegal in the changing Indian social scenario. However, this is not to say that the principles relating to caste endogamy and gotra exogamy have become completely extinct, even now these principles are widely followed in Hindu marriage.

(ii) Changes in marriage rites and rituals:
Changes have also been marked in respect of the rites and rituals of Hindu marriage. These rites and rituals envisaged the Hindu marriage as a religious sacrament, which included saptapadi, panigrahana, kanyadana pradakhina, etc. The chanting of Vedic mantras by, the officiating priest also further justified the sacramental character of Hindu marriage. But at present, attempts are on to simplify the rituals and make the marriage rites and rituals precise. Even the rituals and rites are not followed sincerely or rigidly. The Civil Marriage Act of 1954 has made provision for marriages in civil courts. The Arya Samaj and other religious reform movements have made the marriage rituals simple and precise.

(iii) Increase in the age of marriage:
Now-a-days the age of the couple at the time of marriage has gone up. Legally speaking the minimum age for marriage for boys has been fixed as 21 years and for girls as 18 years. Therefore, the occurrence of child marriages has become very rare. This trend has developed due to several reasons.

Secondly, the spread of education and the desire for higher education has engaged the partners in studies. This is common in the case of boys and girls belonging to the higher castes.

Thirdly, the boys prefer to settle down first and then go in for marriage. Fourthly, the desire for economic independence in the case of girls may be attributed to the causation of 'late marriage'. .

Decline of parental control over the arrangement of marriage:
Previously the marriages were settled by the parents or other relatives. Their decision regarding the selection of mates was binding. The life partners had no say in the matter. But now-a-days, in the wake of modernization and with the spread of modern values and modern education boys and girls are inculcating individualism and liberalism. These values enable them to take their own decision in marriage. The parents and relatives now seek their opinion in marriage.

(v) Incidence of widow marriage:
Previously the Hindu widows were not allowed to contract a second marriage. Rather the practice of 'sati' was followed wherein the widow was asked to put an end to her life by burning herself on the funeral pyre of her deceased husband. But now the practice of sati has been abolished with the enactment of law. The Hindu Widow Remarriage Act, 1950 has made provision for remarriage of widows.

(vi) Marriage has become unstable:
Customarily the Hindu marriage was considered a religious sacrament and an indissoluble bond between the spouses. But with the enactment of the Hindu Marriage Act, 1955, the sacramental aspect of the Hindu marriage has been challenged. The Act has made provision for divorce.

Women are no longer prepared to put up with injustice meted out to them in the name of family honour. They may seek divorce within the ambit of the Act in order to break the ill-fated marriage. The Marriage Laws Amendment Act has further simplified the provision of divorce. Due to these reasons the Hindu marriage has become brittle and the incidence of divorce is on the increase.

(vii) Changes in the aims of marriage:
The aims of the Hindu marriage have undergone the process of change. In the past, 'dharma' 'Praja' and rati' were considered as the three aims of the Hindu marriage. 'Dharma' was considered the main objective of marriage and it was followed by 'praja' or procreation and 'rati' or sexual

pleasure. Thus sex was given the lowest priority in the Hindu marriage. But at present the order of priority, with regard to the traditional aims, has been reversed with rati or sexual pleasure at the top followed by praja and dharma.

(viii) Changes in the considerations in the choice of mate:
The traditional criteria of caste, religion, family background and income are no more considered important in the selection of mates. The emphasis has shifted to the socio-economic status of the bridegroom's family and his education and earning potential. In case of girls, their intelligence, education, capability of household management etc. are taken as the criteria in the selection of mates.

(ix) Change in control of parents over the selection of mates:
The control of parents over the selection of mates in marriage is on the decline. Traditionally, it was the responsibility of the parents or the guardians to arrange marriages for their children and their decision was final and binding even against the wishes of the mates. But the impact of the West spread of modern education and economic independence have enabled the boys and girls to choose their mates according to their own wishes. This has resulted in a number of love marriages.

(x) The emergence of dowry system:
In the past at the time of marriage the parents of a bride offered her jewels and ornaments as a token of their love and affection towards her. But now-a-days, this custom seems to have gradually degenerated into the practice of dowry and it is playing a decisive role in marriage. As a necessary pre-condition of marriage dowry has become a major social problem and this evil is spreading like wild fire in the Hindu society. Non-payment or deferred payment of dowry has resulted in broken marriages, bride burning and bride torturing.

(xi) Prohibition of Polygamy:
The Hindu Marriage Act of 1955 has declared polygamy to be illegal. The law provides that no one can marry a second time while the former spouse is alive. This has brought to an end the age-old practice of marrying several women in order to get a son. Women have now become educated and conscious of their equal rights in marriage.

2.15 Suggested Readings

Human Society—Kingsly Davis.Sociology of Family—Dr. Sanjiv Mahajan, Arjun Publishing House.Families in India, Marriage and Kinship—Shobhita Jain, Rawat Publiction.

Indian Society and Social Problems—Dr. R.N. Saxena.Encyclopedia of Sociology—Harikrishna Rawat.

Sociology of a Family—Dr. Sanjeev Mahajan, Arjun Publishing House.Sixteen Rituals (Sanskars)—Swami Adheshan Monoj Publication.

UNIT III IMPLICATIONS FOR THE FAMILY AND ITS MEMBERS; DUAL EARNERS FAMILIES, SINGLE PARENT FAMILIES, FEMALE HEADED HOUSEHOLDS, CHILDLESS FAMILIES; FAMILY INTERACTIONS; FAMILY DEVELOPMENT AND FAMILY LIFE CYCLE; FAMILY ASSESSMENT: METHODS AND ITS IMPLICATIONS.

Structure

3.1 Introduction

The Maternal Family This type of family is made up of an old woman, her sons, her daughters and the children of her daughters. Here the sons continue to live with their mothers and are only visitors to the homes of their wives. The control of children is in the hands of their maternal uncles and not their fathers. In some sociological treatises, the term "matriarchy" is also in vogue

3.2 OBJECTIVES

After studying this unit you will be able to understand

The single and dual carrier family

Understand the family interaction

Implications for the family and its members; dual earners families, single parent families, female headed households, childless families; family interactions; family development and family life cycle; family assessment: methods and its implications.

NOTES

The theories of family interaction

Family assessment and its purpose.

3.3. The Single Child Family , blended family

The single child families are seen mostly among adults who marry late in their lives. In this type of family, the wife is dedicated to her career and the couples 11 voluntarily limit the number of children they want to have. The parents here try to strike a balance between parenthood and the gratification of personal interests. This type of family is slowly catching on in India. The Childless Family Highly career oriented and highly educated men and women often decide to have no children for the sake of their career. Nowadays an increased number of married couples are voluntarily childless.

Though this is seen at all socio-economic level, it is especially true among the educated class and the trend is popular in western countries. Such families have more financial resources at their disposal. Further, effective contraception, abortion facilities, the cost of rearing children and changing attitude towards children and life are some of the reasons that contribute to this trend.

The Families with Working Mothers Families where mothers work outside their home and put their children in the custody of caretakers or in child care centers are seen increasing at all levels especially in urban and sub-urban areas in India. The attitude of parents towards the dual earner arrangement and the mother‟s satisfaction in her work modifies the effects of maternal employment on children. According to Green Berger and Gold Berg, if the working mother obtains personal satisfaction from employment and if she does not experience a feeling of guilt about being away from children and if she has adequate household arrangement to prevent her from being stressed by dual role demands, she may be a good mother or better than a home making mother.

The Single Parent Family The single parent family is a type of family that includes one parent and one or more children. The parent may either be a mother or a father. Such families are a resultant of divorce, separation or death. The single parent family is more challenging to a woman because she not only has to look after household responsibilities, provide financial security but also provide socio-emotional support to the child/children. In the event of divorce, the mother is given the custody of the child. Quality of life is a major issue for single parent families. In India, single parent families are generally supported by close relatives. The disadvantage here is the child has only one role model to help him/her learn acceptable social roles.

Blended Family

The blended family is a familial arrangement, which consists of a husband and wife of whom one or both, who have been married before. It also includes children from their previous marriages. It is interesting to note that in this type of family two different structures dissolve or combine to form a new type of family structure. The blended family was earlier known as the stepfamily. Such types of families deal with a complicated extended family network especially in trying to establish parental roles, an uncertain developmental life career and unique development tasks. These families are also called as reconstituted families. Cohabitation Cohabitation refers to individuals sharing living arrangements with an intimate relationship. It may be difficult to say whether individuals are married or unmarried. However, cohabitation is referred to unmarried individuals sharing living quarters and who are sexually involved.

3.4 The Dual Career Family

The Dual Career family is one in which both the husband and wife pursue a career outside the home without affecting their parenting roles. The social and economic 16 changes taking place have given rise to the dual career family. In such a family structure the spouses are keen to develop their professional roles. The common stereo type sex roles change or get inter mingled with the mother going out to work and bringing home an income and the father sharing household tasks along with child care responsibilities. But when spouses do not share these tasks this could result in physical stress, tension and reduce leisure time for one spouse who tries to fulfill many roles. Dual Earner Families The language of dual earner families developed in research on families especially in industrialized societies. A nomenclature was needed to describe what was then a new form of family that arose when women who once worked from inside the home doing everything from nurturing work to family farming to producing goods such as candles and clothes and moved into cash economy and took up paid jobs. The questions that emerged from women‟s paid employment ranged from the effect of women‟s income on their power within the marriage and to who would take care of the children.
Attributing to the Changes in the Family Changes in the Family Education and Empowerment of Women Decline of the Joint Family system Late Marriage of Women Impact of the West Decline in family size More child-centered Modernization and Urbanization Changing family functions Weakening of extended Kinship links and emergence of privatized nuclear family/modified extended family.

FAMILY INTERACTIONS

Adults will treasure their child hood memories which consists of family interactions. Interpersonal activities of members of a family in variety of environments. When we hear the term family communication what do we think of? A happy family laughing together at dinner?A fight with brother or sister?A visit with grandmother? Family communication is all of these. Understanding the function of communication within the family

helps us avoid conflict and maintain good relations. For any relationship to blossom, interaction is a must. The relationship will suffer if family members don't put active effort into interacting regularly. Love is what we all want most of the time, often without even realizing it. Young children want love even more. By connecting with children and giving them lots of positive attention , we show them how much we love them. Over the past three decades, research has consistently reflected the importance of responsive interactions that children have with their parents as the basis for infant attachment, social and emotional development. The quality of parent-infant interaction during the first year of life plays a crucial role in socio emotional development outcomes, not only in infancy, but throughout the life span. Interaction within the family is extremely important because it enables members to express their needs, wants, and concerns to each other. Open and honest interaction creates an atmosphere that allows family members to express their differences as well as love and admiration for one another.

3.5 Purpose of Family Interactions

The primary purpose of family interaction is to preserve and strengthen family relationships, whenever possible.

1. Additional purposes of family interaction include:

2. Assessing and addressing safety issues during family interaction

3. Assessing and working with the family to enhance parental protective capacities

4. .Establishing, enhancing, and maintaining child, sibling, and family attachments

5. Promoting parent-child relationships.

6. Family interaction is an opportunity for parents to evaluate their own parenting capacities and gain knowledge of new practices and views about parenting.

3.6 Theories of Family Interactions

Family systems theory In the 1950s Dr. MURRAY BOWEN explained about structure and patterns of interaction. It views that the family as a structure of related parts or subsystems, each part carries out certain functions. These parts include the spousal subsystem, the parent child subsystem, the parental sub system and the personal subsystems. One of these sub systems important tasks is maintaining their boundaries. The 4 sub systems should interact each other even though they are separate. Within family systems theory the focus is on with how we relate to one another. We build a collection of interactions called a system. The system is a family and the focus is on the system rather than just on individuals

Symbolic interaction Symbolic interaction theory describes the family as a unit of interacting personalities. This theory focuses attention on the way that people interact through symbols: words, gestures, rules, and roles. The symbolic interaction perspective is based on how humans develop a complex set of symbols to give meaning to the family. Meaning evolves from their interactions in the family. These interactions are subjectively interpreted through existing symbols. Understanding these symbols is important in understanding human behavior

Family communication patterns theory

Families can use two basic processes to establish shared social reality. One process, called conversation orientation, involves discussing the concept in questions among all family members to discover its innate quality and attributes. The other process, called conformity orientation, involves a family member in authority, usually a parent, to define social reality for the family. As a result, they are consequential not only for the communication within families, but also for the emotional climate of family relationships, how families approach problem solving, coordination of behaviors, and conflict behaviors, among others. They also affect child development and adjustment in predictable ways.

Wife and Husband Communication

Good communication in marriage is like a life giving river. When husband and wife cannot interact, a huge dam is built stopping the flow of water. This causes everything around them to suffer and slowly die. Spouses develop a strong inward thirst for their unmet needs, eventually causing multiple cracks throughout the relationship. Many promising marriages have fallen into ruin simply because of a lack of interaction. Good communication is the foundation of a strong marriage. Without such understanding , couple can not maintain healthy communications which requires for long life relationship.Wives generally want a husband who can just sit down and listen, someone who can completely appreciate her emotions and views. Husbands typically want to reason so wives may sometimes feel that they are talking to a wall. Eventually, the wives may stop sharing many of their feelings and thoughts and poor communication take place. When they reach to 40's woman starts blaming her husband because of his past negatives, they could not maintain proper interaction because of family problems.

III. Parent Infant Interactions Babies interact from birth, through sounds (crying, cooing, squealing), facial expressions (eye contact, smiling, grimacing) and gestures/body movements (moving legs in excitement or distress) Babies continue to develop interactive skills when adults respond to their efforts to "tell" others about what they need or want. Reciprocity -2-3month olds respond with boredom, distress, or withdrawal when their mothers adopt unresponsive faces instead of behaving in their typical interactive fashion.They are disconcerted over adults failure to follow the rules of interaction, indicating they understand these rules, find synchronized and reciprocal interactions more enjoyable, and expect their partners to follow the same rules.

Effectance:

The child learns that his or her behavior can effect the behavior of others in an consistence and predictable fashion. Trust The child learns that the caregiver can be counted on to respond when signaled.So, infants whose parents accurately identify and interpret their signals and respond in a sensitive manner tend to display more selfcalming behaviors, less irritability, more positive attachment patterns, more positive social engagement, in general, and show more favorable social emotional developmental trajectories over time.

IV. Parent-Infant Interaction Pattern Symmetrical:

Symmetrical interaction occurs when both parent and infant are actively engaged with one another or in joint focus of attention. Example: when parent walks to the infant then the infant watches the parent's hand with excitement.

Asymmetrical: Asymmetrical interaction occurs when the parent is attempting to engage the infant but the infant is passively attending to the parent actions.Example: The parent sings to the infant and the infant stares back at the parent; the parent plays with the infant's foot and the infant passively watches his or her own foot.

Unilateral: Unilateral communication occurs when the parent tries to engage the infant, who is not attending or responding to the adult. Example: The adult picks up the infant's feet and playing them together while the infant gazes off in another direction (not looking at the parent or his or her feet).

Passive unilateral: Passive unilateral communication occurs when the infant is not attending to the parent and the parent is attentive but does not talk to or attempt to engage the infant in an activity.Example: parent watches the infant while the infant plays with and looks at his or her Fingers but the parent shows no interest towards the child's activity.

Contact comfort: The gratification derived from touch Babies need contact comfort from adults who love them. Mothers and fathers engage their infants in interactions with different characteristics. Mothers kiss, hug, talk to, smile at, tend or hold their infants more than fathers do. Indeed, parent gender has a much more powerful influence than child care or employment status. Fathers and mothers tend to behave in their characteristic ways even in families where mothers work and or fathers assume the assume the major role in child care.

V. Parent And Preschool Child Interactions During the preschool years, most children gradually become more sensitive to the sounds of spoken words and become increasingly capable of producing all the sounds of their language. They use the entire body to communicate and convey. Gestures, body movements, No one understands the children as effectively as parents, especially mother. At this stage children draw the

picture of family members and feel connected with the family.They don't want their mother to leave them and go anywhere, and follows their mother every where. They cry when father leaves, later they forget and enjoys with the mother. They slowly connect to their grandparents and start speaking with everyone in the family.

Ways of improving interaction in preschoolers

 Give your full attention

 Be aware of your tone

 Reflect your child's unspoken emotions

 Offer limited choices

 Don't end your answer just with ok

 Grant a preschoolers wish in fantasy

 Solve problems playfully

Parent And School Age Child School age kids alternatively feel dependent, resistant or even rebellious toward their parents. school age children question, doubt and criticize their parents. between the ages of 6 and 11 -- requires a more sophisticated approach than that used for preschoolers. School-aged children are able to sustain conversations, use prospective thinking skills such as problem solving and choose among several options. Interacting with their child is one of the most pleasurable and rewarding experiences for parents. School age children often maintain indirect communication with their parents. They don't show direct interaction with the parents most of the time.

Make positive communication with your schoolage childmaking time Make regular time to communicate with your child in your own special way. Even two minutes every half hour makes a difference. And when your child comes to you to talk, try to drop everything. Your child might need your undivided attention for only five minutes. Praise and reward No matter how old your child is, your praise and encouragement will help her feel good about herself and strengthen your bond. Energy allocation Parents should display low energy regarding bad behaviors and exert high energy regarding good behaviors. Often unknowingly, parents escalate the situation surrounding a child's bad behavior by yelling and directing the child's attention to the undesired behavior.

VI. Parent-Adolescent Interaction Adolescence is a time of transformation and reorganization in family relationships. Mothers and daughters have the highest amount of mutual disclosure in parent-adolescent family relationships. Mothers serve as their daughters' first teachers, counselors, and they provide vital sources of material and emotional support. When parents demonstrate a willingnessto listen to their child, the child in turn, may demonstrate a willingness to listen in

other interpersonal situations (Pennington, 2003). When the parents don't there is a chance to unwillingness to share from children too.

Due to personalities, values, opinions, attitudes, past-goals, and events; mothers and daughters bring different meaning into their interactions. Thus, they hold different perceptions of listening behavior within the relationship. Daughters usually see their mothers to be better listeners than themselves. Poor listening on a mother's part can result in the daughter closing herself off to her mother, Daughters admit to fake listening when their mothers are talking to them. Teens tend to tune into distractions and act like they are listening. In doing so it's evident that theylisten only when they want to listen. Mothers need to realize that they should not force conversations.Teens pride themselves on independence but still see their mothers as important confidants who provide advice, support, and encouragement. Autonomy differs for both mothers and daughters. For mothers, their autonomy includes their work, school, volunteer time, activities with friends, or other family members. For daughters, their autonomy consists of school, music, theater, sports, and friends (activities encouraged to have daughters grow from their outside experience) mothers talk much less about relationship issues to sons than to daughters.

3.7 The Individual and Family Development

As we all grow and enter different phases in our lives, we go through various challenges and conquer milestones unique to that phase. For example, in the first few years of life, a baby is dealing with learning to trust his or her caregivers, whereas the main task of a teen is the need to figure out their own identity.

The developmental steps that we go through have been explained by theorists like Erik Erikson, who proposed the previous examples of the psychosocial growth of children and teens, and Jean Piaget, who explained their stages of cognitive or mental growth. Knowing these individual stages of development is useful to counselors because it gives them a foundation for understanding what typical issues stand out in each season of one's life. This helps them pay special attention to an individual's progress or stagnation in this area, how that presents symptoms in the client, and how it may impact their later growth.

But, the stages an individual goes through during life is not the only type of growth that counselors should pay attention to. For counselors doing family therapy, it is also important to understand that the family itself has its own stages of development. This can be described by the family life cycle, or a series of developmental stages a family moves through over time.

3.8 The Family Life Cycle

1. Unattached Adult

The main issue occurring in this first stage is accepting parent-offspring separation. Rob Smith has just turned 20. He is in college, which means he is experiencing life on his own for the first time. The tasks that are critical for him to accomplish in this phase include: separating from family and connecting with peers as well as initiating a career.

2. Newly Married Adults

The main in issue in this stage is commitment to the marriage. Rob is 23, and he has just gotten married. He is learning how to no longer act for himself and now act for the welfare of his wife and their relationship. He is accomplishing the tasks of forming a marital system while continuing to address career demands at his job as a copywriter.

3. Childbearing Adults

Rob's wife, Penny, has just given birth to their first child and named her Becky. They are now accepting new members into the system. They need to make adjustments in their usual schedules, finances, and duties in order to care for this new child. They are also needing to make room for visits and interactions with their parents in their new role as grandparents.

4. Preschool-age Children

Becky has just entered a preschool and is full of energy, joy, and curiosity. And, while adored by her parents, she is also a bit draining. Now is the time for Rob and Penny to accept the new personality of their child, adjusting to it in whatever ways are best. It is also important that Rob and Penny make efforts to take time out as a couple - going out on dates, for example.

5. School-age Child

Becky is 8 years old, and the issue at hand now is for Rob and Penny to allow their child to establish relationships outside the family. This means they give Becky permission to go over to Megan's house for her birthday party or to have Miranda over to the house on Saturday. Along with encouraging social interactions, this time includes tasks like encouraging the child educationally and managing increased activities, like Becky's play rehearsals after school.

6. Teenage Child

This is a challenging time for Rob and Penny. Becky is now 15 years old and wanting more independence. The main issue is then increasing flexibility of family boundaries to allow independence. Rob and Penny need to shift to some degree in their parental role and provide opportunities for Becky's growth.

7. Launching Center

Rob and Penny find it hard to believe, but it is actually time for Becky to head off for college and live on her own. The issue now is for them to accept exits from and entries into the family. While Becky leaves home,

she still comes back every several months to visit, so one of the tasks is to accept her leaving while also maintaining a supportive home for her to return to.

8. Middle-aged Adults

It is a strange feeling for Rob and Penny to be alone in the house again after all those years. They are now letting go of children and facing each other again. Now that their conversations are not focused on Becky, they are learning to share other things with each other and building their closeness. Becky is now 25 and married, so they welcome her back to their home for visits. The final task to face now is managing the continued aging and new illnesses present in Penny's father and Rob's mother.

9. Retired Adults

Family Assessment

The best way to get to know a family is to conduct a formal family assessment. As a required component of Part C of IDEA, the family assessment offers providers an opportunity to sit down with a family and develop an understanding of who they are. Based on theoretical frameworks offered earlier, it is essential that the family assessment include components about the daily life of the family as well as the environment in which they live .By offering a strength-based approach that encompasses a family’s culture and community, the assessment provides information that can be used to determine appropriate goals and interventions. Most important, the family assessment is voluntary – family members may share details about themselves or share nothing. Building trust with a family is an important part of implementing the family assessment well.

Ultimately, the family assessment guides the development of the IFSP or the IEP and helps providers choose evidence-based practices (EBP). The information collected needs to detail a family’s strengths, culture, routines, and goals. The family assessment is part of the evaluation, but also can be used anytime to understand changes within each family. As an information gathering tool for the IFSP/IEP, the family assessment focuses on the family routines and the child's abilities, needs, and supports. It should also focus on the resources the family uses to support child development.

Through active listening, feedback, and sharing information, a family assessment is able to capture the life of a family in a way that feeds directly into service delivery. It should engage family members (not just parents) in conversations with each other or with the professional to consider the present, the future, successes, and challenges.

The benefits of Family Based Assessment include:

It facilitates family participation

It helps providers understand the family’s strengths, goals, and priorities

It helps identify the family system and resources

It helps to reflect the voices and choices of the family

It reflects the families' needs so that intervention can be tailored to address those needs

Challenges to Family Based Assessment include:

Providers may Feel uncomfortable or intrusive when conducting a family based assessment Lack confidence in their ability and resources to address the family's issues and concerns Disagree with the family and the family's priorities Families may

Refuse to participate - It is voluntary for a family to participate Offer misleading or conflicting information about themselves Not "buy into" the process Have different communications styles or preferences

Providers may Come back to the information as they get to know the family

Reassure family information is confidential

Explain the purpose of collecting the information to guide program planning

Use the family's preferred communication style

Ensure conduct of the conversation is culturally acceptable

3.9 LET US SUM UP

The Families with Working Mothers Families where mothers work outside their home and put their children in the custody of caretakers or in child care centers are seen increasing at all levels especially in urban and sub-urban areas in India. The attitude of parents towards the dual earner arrangement and the mother"s satisfaction in her work modifies the effects of maternal employment on children. According to Green Berger and Gold Berg, if the working mother obtains personal satisfaction from employment and if she does not experience a feeling of guilt about being away from children and if she has adequate household arrangement to prevent her from being stressed by dual role demands, she may be a good mother or better than a home making mother, Family interactions play a vital role in strengthening the emotional bonds among the family members which intern influence the family relationships on the whole. Among all the family interactions parent-child interactions are important as children learn from the parents through observation and modeling from the various socialization processes that occur in the family. Good communication is important for healthy family, we should try to improve the interactions among the family members, because through interaction only the family will be strengthen.

3.10 Unit end exercises

What do mean by single and blended family?

Explain family life cycle.

3.11 Answer check your progress

The Single Parent Family The single parent family is a type of family that includes one parent and one or more children. The parent may either be a mother or a father. Such families are a resultant of divorce, separation or death. The single parent family is more challenging to a woman because she not only has to look after household responsibilities, provide financial security but also provide socio-emotional support to the child/children. In the event of divorce, the mother is given the custody of the child. Quality of life is a major issue for single parent families. In India, single parent families are generally supported by close relatives. The disadvantage here is the child has only one role model to help him/her learn acceptable social roles.

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3.12 Further Readings

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UNIT IV DEMOGRAPHIC ASPECTS OF THE FAMILY IN INDIA: SOCIAL IN EQUALITIES AND FERTILITY BEHAVIOR, TRENDS OF POPULATION GROWTH; FACTORS AFFECTING POPULATION GROWTH; CONSEQUENCES OF POPULATION EXPLOSION. DEMOGRAPHIC DIMENSIONS OF THE FAMILY AND MARRIAGE SYSTEM

Structure

4.1Introduction

The subject matter of social demography are : birth rate, death rate, resident-non resident population, sex structure, population density and distribution, life expectancy, living standard, population control of a society etc. The social issues of a country play important part to give understanding into any country's population. This relates demography with sociology and it gives birth to social demography.

4.2 Objectives

After studying of this unit, students will be able to:

• Understand the family and marriage system of Indian Society.

• Understand the life expectancy, sex ratio, age structure of the family members.

4.3Subject Matter of Social Demography

The population density, structure of population and its attributes effects social and economic conditions of any country. These are the important traits which determine a country's growth. The population of my country should be balance compare to the available means. Uncontrolled population growth, results in population explosion. Unemployment, over crowded sovereignty, poverty are the causes of family sufferings and disintegration, directly or indirectly. Population explosion or growing population depreciate a country's economic growth. It also slows down the speed of planned development. Over population embarks many serious problems in less developed countries, as-the working/workable population gets no work, that infuse dissatisfaction into students and increase poverty, etc.

4.4 Trends in population Growth in India

The population of a country, plays a major role for future development and prosperity of the country. Less population or over population, both effects production, residents, non-residents, economic growth, concentration, political and social policy changes of the society, etc. Theories of Population From ancient, socio-scientist and economist had shown interest in solving the problem of population. What should be the ideal population of a country? What should be the growth rate of population? How to control the population growth? These are the questions on which many principles are propounded. Now, we will discuss; in short, the principles of demography.

Population Theory of Malthus In 1798, Malthus had propounded a theory of population from his book "An essay on principles of population". Malthus was a priest; He deeply studied the population growth of various European countries. Malthusian theory in based on the three assumptions:—

1. Population Growth Rate: According to Malthus, the population grow on the geometrical pattern, i.e., 1, 2, 4, 8, 16, 32, 64. A country's population gets double in 25 years, if not interrupted.

2. Production Rate of Food Material: Malthus says, in comparisons to population growth, the food material grow slow. It says, eatables grow in mathematical proportion, i.e., 1, 2, 3, 4, 5, 6, 7, etc. In a time period when the countries population multiply16 times, its food material will grow five times only. Fast growing population gives birth to many evils like voracity, unemployment, struggle, delinquency, war and rivalry.

3. Population Control—According to Malthus, there are two methods of population control: (a) Positive Check (b) Preventive Check (a) Positive Check—Death rate increases because the nature itself keep Positive check. Whenever population grows bigger than the food. The Nature prevent it by flood, earthquake, plague, faming, heavy rainfall, epidemic voracity, natural calamities and war, So that, the extra population dies and only the required number of population remains. (b) Preventive Check—Preventive checks are those, which are used by the society itself

to check the population. It consist artificial measures. We will also discuss the causes of population growth and National Population Policy.

Demographic aspects of the family in India: social in equalities and fertility behavior, trends of population growth; factors affecting population growth; consequences of population explosion. Demographic dimensions of the Family and marriage system

NOTES

Population Growth Rate in India

Year Population (cr)

Ten yearly growth	percentage rate
1911	25.20 5.7
1921	25.13 – 0.3
1931	27.89 11.0
1941	31.86 14.2
1951	36.10 11.2
1961	43.92 21.6
1971	54.81 24.8
1981	68.51 24.8
1991	84.63 23.5
2001	102.87 21.5

2011 121.01 17.6 Table shows, important facts about population growth of India between 1911 to 2011. Population decrease between 1911 to 1921 in India because epidemics, plague, diarrhea broke out which toll in thousands, again population started increasing from 1921. Population remained static between 1931 to 1941. In comparison to further decades. Among decades major difference shown in 1931–1941 and 1941–51. Many people came from Pakistan to India in 1947 due to partition. Before that demographic data was same for India and Pakistan. India's population was 43.92 cr in 1961, 54.81 cr. in 1971, 68.51 cr in 1981 and 84.63 cr in 1991. According to 2001 census, population was 102.87 cr now, according to 2011 census it is 121.01 cr in India. According to 2001 census,

Indian states shows these statistics contribution in total population 16.49%. is from Uttar Pradesh, 8.07% from Bihar, 9.42% from Maharashtra, from 7.81% West Bengal, 5.49% from Rajasthan, 5.87% from Madhya Pradesh. These states contribute 54.85% population of the country. Important facts related to Indian population—(i) In India approx. 1.8 cr population increases every year which is equal to total australian pupulation. (ii) 16% of world's population lives in India it means every 16 person among 100, is an Indian or every seventh, in the world is a Indian. (iii) At present per thousand birth rate is 22.5 and death rate is 7.3, in India. (iv) According to 2011 census there are 62.37 cr male and 58.64 cr female in the country, i.e., 940 female per 1000 male. (v)

Literacy rate is 74.04% according to 2011 census. The country's 27.8% population lives in Urban areas and 72.2% in rural areas.

Birth-Rate and Death-Rate (i) Birth Rate: India's birth rate is bigger tha2n to other nations. There is a difference found between registered birth rate and death rate date, because everyone died/born are not registered. Estimated Birth rate date of different decades. Table shows as: Decades Birth-Rate per thousand 1921–30 46.4 1931–40 35.2 1941–50 39.3 1951–60 41.7 1961–70 41.1 1971–80 33.6 1981–90 29.9 2006–07 23.1 2009 22.5 The table shows in 2009, the birth rate was 22.5 person per thousand birth which was highest among nations, except China. Birth rate shows difference between urban and rural area, Birth rate is higher in rural areas as compared to urban. This trend was same in all states. The highest birth rate was in Assam and the lowest in Tamilnadu. The birth rate of any country get influenced by the prevailing socio-conditions, as : death rate, abortion, unproductivity, personal freedom, development of production function, healthcare conditions and ambitions of people are examples. There are many reasons of higher birth-rate such as: tropical climate, child marriage, lack of entertainment facilities, joint family system, necessity of marriage, increase in medical facilities, fortune etc. In India, education, occupation, religion, rural and urban residence, caste are important factors which influence the birth rate. (ii) Death rate: Estimated date shows difference in death rate same as it shown in birth rate. Death rate per thousand, in different decades are as follows:

Decades Death rate per thousand 1921–30 36.3 1931–40 31.2 1941–50 27.4 1951–60 28.8 1961–70 18.9 1971–80 11.9 1981–90 9.6 2006–07 7.4 2009 7.3 Same as birth rate, death rate is also bigger in India in comparison to other nations because in India standard of health facilities and living are low alongwith lack of nutritive food and medical facilities, poverty and epemic are at its peak. Three decades before 1921, famin/drought, Plegue and influenza were the reasons of higher death rate. After 1921, death rate decrease in every decade. In 1991 it was 9.6 person/thousand per year. According to 2009, census, death rate is 7.3 per thousand person. The highest death rate data is in 0–4 years age group. If we consider the age group, an increased death rate is fine in old age except childhood and youth. Poverty, natural calamities (earthquake, flood, drought) , epidemics, industrial waste and lack of medical facilities are the many reason responsible for increased death rate in India.

Density of Population Density of population means that 'how many people lives' in 1 Kilometer area. To get the density of population, formula is the total population of the country divided by total area of the country. In 1901 the density population India was 77 person / per kilometere, in 1961 its 173 km, in 1981 its 230 / km and 2011 its 382 / kilometer. The highest density at present is in Delhi for 11,207 per km and in Chandigarh it is 9252 per km. In states, data shows 1029 / km

Life Expectancy

The meaning of life expectancy is, age of living years, which is expected at the time of birth. Average age of Indians were 24 years in 1941, which increased to 32.1 years in 1951 to 63.5 years in 2007. Average age

increased due to growth in education, medical facilities and living standard. Age Structure Important information can be available from the age structure of any country; such as, number of school going, work force and number of voters etc. According to 2001 census, 0–14 year group is 41%, this percentage shows that in this country dependents are many. 60 and above years percentage is 7.28, it means 44.5% population contributes only children and old, rest 62.45 is into 15–59 years and constitute nations 39% workable population.

To promote production of goods and bring prosperity, it is necessary to increase percentage of workable population. Sex Ratio Sex ratio or men-women ratio in the population of any country is very important. It effects marriage rate, child's birth and death rate. According to 2001 census, male population is 62.37 cr and female population is 58.64 cr. It shows per 1000 male/female are 940, which was 933 in 2001. In Kerala, per 1000 male/female are 1084 which is highest in Kerala and lowest in Haryana, with 1000 male/877 female data. In Jammu Kashmir per 1000 male / female population is 883, in Sikkim it is 889 male per 1000, in Punjab is 893 / 1000 male, in Uttar Pradesh 908/1000 male. Sex ratio data shows between rural and urban areas. In urban areas it is 859/1000 male while 952/1000 make in rural areas. Some socio reasons prevails why female population is low here, i.e., more birth of male infants, no proper care for girl child during childhood, child marriage and getting pregnant at tender age, death at the time of delivery of child etc.

Religion People of India, follows many religions. Indian society is compounded by Hindu, Muslim, Christian, Jain, Sikh, Budha, Jews. According to 2001 census, the percentage of people following different religion were – Hindu 82,75%, Muslim 13.81%, Christian 2.40%, Sikh 1.92%, Budha 0.79%, Jain 0.42% and others 0.66%. Language India is a country of many languages. Indians use 1,652 languages and dialects. You can divide language into two: firstly, Dravid languages; as Tamil, Telgu, Kannada, Malyalam, etc. Secnodly, Indo Aryan languages; as Sanskrit, Hindi, Marathi, Magadhi, Rajasthani, Punjabi, Udiya etc. Indian constitution registered 22 languages, every language has its own linguistics. Hindi has got first position among these.Except there 22 Languages Malvi, Bhojpuri, Marvadi and Pahadi languages are important, many people use them.

Year	Literacy per cent
1951	16.7
1961	24.0
1971	29.5
1981	36.2
1991	52.21
2001	64.8
2011	74.04

Its clear now, that in last 50 years, India's literacy rate increased much. In 1991 22.42 cr male and 12.77 cr female were literate. 33.65 cr males and 22.41 cr females were literate in 2001. Male literacy was 82.14% and female literacy was 65.46% in 2011. India's most literate state is Kerala with 93.91% Literacy rate. In Mizoram it is 91.58%, in Tripura its is 87.75%, in Goa it is 87.40% and in Himachal Pradesh it is 83.78%. Literacy rate is lowest in Bihar. Literacy rate in 1951 was 16.7 per cent, in 1961 it was 24, in 1971 it was 29.5, in 1981 it was 36.2, in 1991 it was 52.21, in 2001 it was 64.8 and in 2011 it is

Population Explosion in India; .

1. Tropical Climate: A girl child gets mature soon because of tropical climate, and gets able to produce a child sooner. This reproductive years runs larger and in this period she gives births to many children.

2. Child Marriage: Small kids get married due to this system. So female reproduction period, i.e., (15–35 years) is fully used. This is the reason why more children take birth.

3. Lack of Entertainment Facilities: In lack of entertainment facilities; female is an object of entertainment in people of lower level of living group.

4. Joint Family System: Under joint family system, the old people wants to see the marriages of their sons and grand children infront of them or at their present, looking after a child is not a problem in these house hold. A big household is considered as a symbol of authority, status, strength in the society.

5. Illiteracy: In the lack of education, people do not understand result of population growth and keep giving child birth without any interruption. 6. Lower Living Standard: Due to low living standard people thinks that many children will help in production process and will earn more. Because of lower level of living, they do not spend on child's education, up bringing and luxury. No one get effected by increasing no. of children.

7. No Knowledge of Family Planning or Preventives: Lack of knowledge indifferences is the reason for growing population.

8. Irregularities in Marriage: An Indian get "Compulsory" married to same social status of his / her. Marriage is a religious ritual in India. And important responsibility of a men. But one gets married the resultant must be child birth but in foreign countries getting marry depends on persons own will.

9. Importance of Male Child: Female keep deliver children unless she gets a son. In religion it is said a person gets salvation from his son only.

10. Medical Facilities: Death rate decreased as well as birth rate increased, because of medical facilities in India.

11. Impact of West: Male female ceition freedom inceased because of western impact.

12. Monies, Obsence literature and jazzy, tight clothes increased sex decides and needs.

13. Fortunist: Indians are fortunist they think child is God's gift. God has given birth and will give food too. And they consider birth control a sin. Birth is good in Islam and Bible accepts more children and it is written in it, that "grow and fill" this earth with people.

14. Lack of Population Decay: Leave some exceptions of war and peace. Indian population got hurt little. According to Dr. Chandrashekhar; leave some exceptions population hurt less in last five decades.

15. Arrival of Refugees: Arrival of refugees from neighbouring countries increased the growth of population.

3. Increasing Population and Food Problem: Less developed countries and developing countries run short their food material because of increasing population. They import grains from other nations.

4. Increasing Population and Price Rise: Effective demand for food reduces with population growth as less supply increases prices.

5. Increasing Population and Education: Illiterate increases in less developed countries with population increase.

6. Increasing Population and Residence Problem: Problem of residence and healthily surrounding increases. How to accommodate more people with population increase?

7. Increasing Population and Unemployment: Increasing population gives birth to unemployment, casual employment and disguised unemployment.

8. Increasing Population and Living Standard: The limited income gets distributed on increasing members, so it turns difficult to contribute food, cloth, education, entertainment, games etc. for all. In this way increasing population is responsible for low growth of a country.

9. Increasing Population and Poverty: The poverty increases if population is bigger than required. Land and resources are limited in every country, if used for big population a one will get small portion of it. It effects domestic produce, National / per Capital Income. That makes the country poorer.

10. Increasing Population and Delinquency: Poverty, unemployment and delinquency increase as the rate of population increases because it get difficult to collect feeding resources for all.

11. Increasing Population and Family Disintegration: Control turns problem as family members increase. Parent goes for work and it gives liberty time to kids. They turns naughty, overlook family values, and it gives way to family disintegration.

12. Increasing Population or Civic Problems: Population growth give birth to industrialisation urbanisation. People transfers from villages to

cities. Result is, the problems due to industrialisation and the unrbanisation increases.

13. Increasing Population and Politics: Big population is responsible for war, regionson, rebels, capitalization. It increases administrative problems. Describe the effects of over Population.

Population Growth in India

The population of India as of 1 March 2011 was 1,210,193,422 persons. This implies an increase of 17.65 per cent in the ten-year period since the 2001 population census. The population increase in the country has continued to slow down and the rate of retardation in population growth appears to have increased. In terms of the average annual growth rate, the population of the country increased at a rate of 1.63 per cent per year, well below the average annual increase of 1.94 per cent per year during 1991-2001. After achieving the peak growth rate of 2.22 per cent per year during the period 1961- 71, population growth in the country has slowed down in every decade and appears to be picking up the momentum.

As the result of the slowdown in the population growth, the net addition to the population decreased in India for the first time during the period 2001-2011. This decrease in the net addition to the population is perhaps the most remarkable feature of population transition in India during the period 2001-2011. This is an indication that the population growth in the country has now started shrinking.

1. Birth and Death Rates:

Birth and death rates in India are high compared to most countries in the world. The percentage decadal growth during 2001-2011 has registered the sharpest decline since independence. For 2001-2011, the decadal growth has become 17.64 per cent—a decrease of 3.90 per cent from 21.54 per cent for the period 1991-2001.

2. Density of Population:

Density of population implies average number of people living per square kilometer. Density of population in a country is measured by dividing its total population by total area. The population density of India from 1901 to 2011 has been the density of population of India was as low as 142 persons per sq. km. and this steadily increased from 267 in 1931 to 382 in 2011.

3. Growth Pattern:

The total population of India in 1901 was about 238 million which rose to 361 million in 1951 and 843 million in 1991 in March 2001, India's population was 1,027 million, which became over 1210 million in March 2011. The annual growth rate since 1971 has been over 2 per cent, while the growth percentages in 1991 and 2001 over the base year of 1901 were about 254 and 331 per cent respectively. Between 2001 and 2011, however, the growth rate declined to 1.76 per cent.

The percentage decadal growth rates of the six most populous states have declined during 2001-2011 compared to 1991-2001:

(i) Uttar Pradesh (25.85% to 20.09%)

(ii) Maharashtra (22.73% to 15.99%)

(iii) Bihar (28.62% to 25.07%)

(iv) West Bengal (17.77% to 13.93%)

(v) Andhra Pradesh (14.59% to 11.10%)

(vi) Madhya Pradesh (24.26% to 20.30%)

(vii) During 2001-2011, as many as 25 states/UTs with a share of about 85 per cent of the country's population registered an annual growth rate of less than 2 per cent as compared to 15 states/UTs with a share of about 42 per cent during the period 1991-2001.

(viii) 15 states/UTs have grown by less than 1.5 per cent per annum during 2001-2011, while the number of such states/UTs was only four during the previous decade.

(ix) Uttar Pradesh is the most populous state with almost 200 million people, which is more than the population of Brazil.

(x) The combined population of Uttar Pradesh and Maharashtra (the second most populous state), at 312 million, is substantially greater than the population of USA. (xi) Three-fifths of India's population live in the following seven states: Uttar Pradesh: 199.6 million

(xii) Maharashtra: 112.4 million Bihar: 103.8 million West Bengal: 91.3 million Andhra Pradesh: 84.7 million Madhya Pradesh: 72.6 million Tamil Nadu: 72.1 million

(xiii) The least populous state is Sikkim.

(xiv) Among the union territories, NCT of Delhi is the most populous.

Population 0-6 Years:

(i) The total number of children in the age group 0-6 years is 158.8 million (-5 million since 2001).

(ii) Twenty states/UTs now have over one million children in the age group 0-6 years. On the other extreme, there are five states/UTs in the country which are yet to reach the 1, 00,000 marks.

(iii) Uttar Pradesh (29.7 million), Bihar (18.6 million), Maharashtra (12.8 million), Madhya Pradesh (10.5 million) and Rajasthan (10.5 million constitute 52 per cent children in the age group 0-6 years).

(iv) The proportion of child population in the age group 0-6 years to total population is 13.1 per cent, while the corresponding figure in 2001 was 15.9 per cent. The decline has been to the extent of 2.8 points.

(v) The share of children in the EAG states, at 53.2 per cent in 2011, has increased by about 1.3 per cent compared to 2001.

(vi) The proportion of child population in the age group 0-6 years to total population is indicative of fall/rise in fertility.

5. Sex Ratio: Sex ratio is defined as the number of females per 1,000 males. In fact, all over the" world, males outnumber females. Sex ratio in the world is 986 females to 1,000 males. According to 2001 census, sex ratio in India was 933 females to 1,000 males which increased to 940 in 2011. The sex ratio in India is highly skewed. This is largely attributed to women's lower status in society which has contributed to their higher mortality rate in all age groups up to 45.

The fluctuating trend of sex ratio may be seen from the fact that in 1901 there were 972 females per 1,000 males, which declined to 930 in 1971, 934 in 1981 and 927 in 1991. In 2001 the sex ratio was, however, 933 recording an increase of six females per 1,000 of males which rose to 940 females per 1,000 males in 2011. In India, it is in the state of Kerala, where females have outnumbered males. According to the census of 2001, the sex ratio in Kerala was 1,058 females per 1,000 males which became 1,048 in 2011. The lowest sex ratio was recorded in Haryana (877: 1000). The overall sex ratio at the national level has increased since 2001 census. This is the highest ever sex ratio since 1971. Increase in sex ratio is observed in 29 states/UTs. Three major states, viz., J&K, Bihar and Gujarat, have shown decline in sex ratio. The child sex ratio at India level (914) is lowest since independence. Increased trend in the child sex ratio (0-6) is seen in Punjab, Haryana, Himachal Pradesh, Gujarat, Tamil Nadu, Mizoram and Andaman and Nicobar Islands. In all the remaining 27 states/UTs, the child sex ratio shows decline over the 2001 census.

Sex ratio in Russia is 1140, followed by France 1050, Japan 1041, USA 1031 and China 940.The overall deficiency in sex ratio in India can be attributed partly to higher mortality of females and partly to their under enumeration in the census. Females in India have always suffered from a lower status, right front the time of conception. Women's lower status in Indian society results in early marriages, lower literacy, poor nutrition and higher fertility and mortality levels, especially during the reproductive age. Recently, the large metropolitan cities of Mumbai, Kolkata, Delhi, Chennai and Bangalore have experienced increasing incidence of female foeticide with the use of ultrasonography. The states of Haryana and Punjab are also having high incidence of female foeticide.

6. Fertility:

The fertility rate in India has been declining steadily. If there had been no contraception, the total fertility rates among married women might now be close to nine children. The increase in natural fertility is mostly due to the relaxation of many traditional checks on fertility that prevailed in Indian society for ages and kept the fertility levels of Indian women well below the biological maximum, or the levels observed in Europe in the !8th and 19th centuries.

7. Literacy:

Any person above the age of seven years, who can read and write in any language, is treated as literate. According to the 2011 census, over 74 per cent of the total population of India aged seven years and above is literate and remaining 26 per cent illiterate. Literacy rate has gone up from 64.88 per cent in 2001 to 74.04 per cent in 2011, showing an increase of 9.21 per cent The literacy rate of males and females works out to be 82.14 per cent and 65.46 per cent respectively. The increase in literacy rate in males and females during 2001-2011 has been of the order of 6.88 and 11.79 per cent respectively. The highest literacy rate is in Kerala being 93.91 per cent. The lowest literacy rate is in Bihar (63.82%). The female literacy rate is also highest in Kerala (91.98%). The literacy rate at the state level has been plotted it may be observed that the highest literacy is in Kerala (93.91%), followed by Lakshadweep (92.28%) and Mizoram (91.58%). The states of Bihar (63.82%), Rajasthan (67.06%), Andhra Pradesh (67.66%), Arunachal Pradesh (66.95%) Jharkhand, J&K and Uttar Pradesh have low literacy rates than the national average (74%). It may be seen that the highest male literacy was in Kerala (96%), followed by Mizoram (93.7%) and Tripura (92.2%). The overall male literacy rate was 82.1 per cent. The average female literacy rate is 65.46 per cent. The female literacy rate is also the highest in Kerala (91.98%), followed by Mizoram (89.40%) and Lakshadweep (88.25%). Despite all these achievements, there are 272, 950, 015 (26%) illiterates in the country.

8. Expectation of Life/Life Expectancy:

Expectation of life refers to the average life of the people of a country. In India expectation of life of the people is very short. Currently, expectation of life in India is estimated to be 66 years as per 2011 Census. In other countries it is much longer than ours. For instance, in Australia, it is 79 years, in Japan 83 years, in England and America 79 years, in Sweden and in Canada 81 years. The average life span of a child born in India has increased over the past four decades from 32.1 years during 1941-51 to 57.3 years in 1981-91 and about 66 years in 2011. This increase is largely attributed to the implementation of various programmes of public health and control of communicable diseases after independence. Among the states, an expectation of life in 1991 of over 65 years has been observed only in Kerala and Punjab. Expectation of life below 60 years has been observed in Assam, Bihar, Gujarat, Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal, Jharkhand, Chhattisgarh and Uttar Pradesh. These are the states where the status of women, especially the female child, has been found to be considerably lower to that of the males.

9. Age Structure/Composition:

Age structure of a population in a country indicates the extent to which the population of that country is productive from the economic point of view. Population in the age group 15-60 years is considered as working population while population in the age group 0-14 years and above 60 years is regarded as nonworking/dependent population. Higher proportion

of working population is beneficial for the economic development of the country.

In India, the percentage of population in the age group 0-14 years is still high. Besides, the percentage of population above 60 years is also increasing, which indicates higher life expectancy and reduction in death rate in the country.

10. Rural-Urban Differentiation:

Ratio of urban population to the total population of a country is an index of the level of industrialization of that country. As industries gather momentum in a country, ratio of urban population goes on rising. India is an agricultural country, so ratio of urban population here is less than the rural population. Some important facts related to rural-urban differentiation in population of India are described as under:

(i) According to 2011 census, about 30 per cent population was living in urban areas. As against it, 70 per cent of the population was living in rural areas.

(ii) In the last 100 years, percentage of urban population in the country has increased from 13 per cent to 30 per cent. It proves that in the economic life of India, role of cities has been increasing.

(iii) Compared to developed countries, the number of cities and the ratio of population living in urban areas are very low. Just about 30 per cent of population today lives in urban areas in India as against 80 per cent in England, 74 per cent in USA, 78 per cent in Japan, 83 per cent in South Korea, 91 per cent in Germany and 97 per cent in Belgium. (iv) As per 2001 census, among India's major cities, Mumbai ranked first with a population of 1.64 crore, Kolkata second with a population of 1.33 crore, and Delhi third with a population of 1.28 crore.

Two main causes of rise in urban population in India are: (i) Migration Effect: Rural life in India suffers from many difficulties, such as less opportunities of employment, low level of income, lack of educational and training facilities, lack of health and medical facilities, etc. In order to get rid of these difficulties rural people migrate to urban areas.

4.5 National Population Policy of India

It was long before procuring our Independence even that several discussion benches saw the onset of population policy. Much before Independence; in the year 1938 only a Sub Committee on population was set up by the National Planning Committee appointed by the Interim Government. The National Planning Committee passed a resolution in 1940 that stated the need for the state to adopt family planning and welfare policies in order to bring about a harmonious order of social economy. The resolution also stressed the need of limitation of children.

April, 1951 recorded further enhancements in this policy formulation as the First Five Year Plan labeled for an overt population policy and adjudged family planning as a pragmatic and essential step towards

improvement in health of mothers and children. It was because in the plan, family planning was treated as a part of the health program and received a 100% funding from the centre government. And with each passing year, the amount of these funds has increased. The success of this family planning agenda was so dear to the heart of the government that even a separate department coined as Department of Family Planning was carved out in the Ministry of Health in the year 1966. This was done with an objective to reinforce the population control program.

This National Population Policy was further modified and re announced in 1977. In this new policy, what was reinforced was education and health. The latter component of the reformulated policy included the general as well as maternal and child health both. A voluntary family planning was also introduced here on. This also saw the change of the phrase from Family Planning to Family Welfare program that is maintained till date.

Population growth is determined by fertility rates (the number of children per adult) – fatality rates. Birth rates and mortality rates are, in turn, determined by a combination of factors. Often economic growth and economic development have led to a decline in population growth, but there are no hard and fast rules and other factors, such as availability of family planning, social expectations and government intervention can play an important role. factors influencing population growth

Economic development. Countries who are in the early stages of economic development tend to have higher rates of population growth. In agriculturally based societies, children are seen as potential income earners. From an early age, they can help with household tasks and collecting the harvest. Also, in societies without state pensions, parents often want more children to act as an insurance for their old age. It is expected children will look after parents in old age. Because child mortality rates are often higher, therefore there is a need to have more children to ensure the parents have sufficient children to look after them in old age.

Education. In developed countries, education is usually compulsory until the age of 16. As education becomes compulsory, children are no longer economic assets – but economic costs. In the US, it is estimated a child can cost approx $230,000 by the time they leave college. Therefore, the cost of bringing up children provides an incentive to reduce family size.

Quality of children. Gary Becker produced a paper in 1973 with H.Gregg Lewis which stated that parents choose the number of children based on a marginal cost and marginal benefit analysis. In developed countries with high rates of return from education, parents have an incentive to have a lower number of children and spend more on their education – to give their children not just standard education but a relatively better education than others. To be able to give children the best start in life, it necessitates smaller families. Becker noted rising real GDP per capita was generally consistent with smaller families.

Welfare payments/State pensions. A generous state pension scheme means couples don't need to have children to provide an effective

retirement support when they are old. Family sizes in developing countries are higher because children are viewed as 'insurance' to look after them in old age. In modern societies, this is not necessary and birth rates fall as a result.

Social and cultural factors. India and China (before one family policy) had strong social attachments to having large families. In the developed world, smaller families are the norm.

Availability of family planning. Increased availability of contraception can enable women to limit family size closer to the desired level. In the developing world, the availability of contraception is more limited, and this can lead to unplanned pregnancies and more rapid population growth. In Africa in 2015, it was estimated that only 33% of women had access to contraception. Increasing rates would play a role in limiting population growth.

Female labour market participation. In developing economies, female education and social mobility are often lower. In societies where women gain a better education, there is a greater desire to put work over starting a family. In the developed world, women have often chosen to get married later and delay having children (or not at all) because they prefer to work and concentrate on their career.

Death rates – Level of medical provision. Often death rates are reduced before a slowdown in birth rates, causing a boom in the population size at a certain point in a country's economic development. In the nineteenth and early twentieth century, there was a rapid improvement in medical treatments which helped to deal with many fatal diseases. Death rates fell and life expectancy increased.

Immigration levels. Some countries biggest drivers of population growth come from net migration. In the UK from 2000 to 2013, around 50% of net population growth came from net international migration. Countries like Japan with very strict immigration laws have seen a stagnation in the population.

Historical factors/war. In the post-war period, western countries saw a 'boom' in population, as couples reunited at the end of the Second World War began having families. The 'baby-boomer' period indicates population growth can be influenced by historical events and a combination of factors which caused a delay in having children until the war ended

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4.6 CAUSES , EFFECTS AND CONCEQUANCES OF OVERPOPULATION

CAUSES OF OVERPOPULATION

Falling mortality rate, mainly due to medicine: the Industrial Revolution brought with it a revolution in the world of medicine. Scientific progress allowed us, from then onward, to overcome diseases that previously could only end in death. The invention of vaccines and discovery of antibiotics such as penicillin saved thousands of lives and were a key factor in unfettered population growth. As the number of

annual deaths fell, while births remained constant, so the population increased.

Progress in food production: for its part, scientific research and technological improvements saw more efficient agricultural production, resulting in year-round crops, more resistant seeds, pesticides, and so on…. aspects that Malthus had not taken into account when putting forth his catastrophic theory condemning the human race to disappear. Improvements In fishing and livestock methods also contributed to the provision of more food with which to nourish the population. **Migration and urban concentration**: in certain countries, the impact of migration and accumulation of the population in cities was very important, but not only with respect to demographic growth, but also in relation to wealth generation. Currently, over half the global population live in cities of more than 300,000 inhabitants and which are expected to continuing growing until they reach 70% of the population.

Consequences of overpopulation:

Exhaustion of natural resources: the main effect of overpopulation is the unequal and unrestrained use of resources. The planet has a limited capacity to generate raw materials and each year the natural resources deficit – the consumption of resources at a faster rate than the planet is able to generate them – is reached earlier. Consequently, in developing countries, overpopulation causes fierce rivalries to control resources. Territorial conflicts over water supply are due in many cases to geopolitical tensions and can end in war.

- **Environmental degradation**: unbridled use of natural resources, as well as growth in energy production from coal, oil and natural gas (fossil fuels) is having a negative impact on the planet. Consequences number, on the one hand, deforestation and desertification, extinction of animal and plant species and changes in the water cycle and the most direct consequence of all in the form of emissions of large quantities of greenhouse gases leading to global warming.

Rising unemployment: on the other hand, a high number of workers exist for a limited number of vacancies and this seems destined to lead to high rates of joblessness in the future. This in turn could provoke rising crime and social revolt. **Rising living costs**: all the above will lead, at the end of the day, to increasing living costs in most countries. Fewer resources, less water, the packing of many people into confined spaces and a lack of money are provoking an increase in the cost of living whereby only a percentage of the population will be able to cover all their needs.

Technological advances: on the positive side, high concentrations of people in urban areas also brings with it research and development in the quest for solutions to the population's needs. An example is the popularisation of communication technologies and the generation,

collection and use of Big Data for sustainable ends, as well as the emergence of Smart Cities adapted to ensure good living conditions for the increasing population.

The **depopulation of rural areas** in favour of cities may, paradoxically, create major challenges for such places. It results in a growing number of under-utilised infrastructures, due to migration away from these rural areas, and previously domesticated landscapes whose ecosystems deteriorate without human attention. It took hundreds of years to reach one billion inhabitants, yet **in little over two centuries this figure multiplied sevenfold.** Why? There are a series of factors that favored the spectacular growth:

- **Falling mortality rate, mainly due to medicine**: the Industrial Revolution brought with it a revolution in the world of medicine. Scientific progress allowed us, from then onward, to overcome diseases that previously could only end in death. The invention of vaccines and discovery of antibiotics such as penicillin saved thousands of lives and were a key factor in unfettered population growth. As the number of annual deaths fell, while births remained constant, so the population increased.

- **Progress in food production**: for its part, scientific research and technological improvements saw more efficient agricultural production, resulting in year-round crops, more resistant seeds, pesticides, and so on…. aspects that Malthus had not taken into account when putting forth his catastrophic theory condemning the human race to disappear. Improvements In fishing and livestock methods also contributed to the provision of more food with which to nourish the population.

Migration and urban concentration: in certain countries, the impact of migration and accumulation of the population in cities was very important, but not only with respect to demographic growth, but also in relation to wealth generation. Currently, over half the global population live in cities of more than 300,000 inhabitants and which are expected to continuing growing until they reach 70% of the popu

4.7FACTORS AFFECTING POPULATION GROWTH

Exhaustion of natural resources: the main effect of overpopulation is the unequal and unrestrained use of resources. The planet has a limited capacity to generate raw materials and each year the natural resources deficit – the consumption of resources at a faster rate than the planet is able to generate them – is reached earlier. Consequently, in developing countries, overpopulation causes fierce rivalries to control resources. Territorial conflicts over water supply are due in many cases to geopolitical tensions and can end in war

. **Environmental degradation**: unbridled use of natural resources, as well as growth in energy production from coal, oil and natural gas (fossil fuels) is having a negative impact on the planet. Consequences number, on the one hand, deforestation and desertification, extinction of animal and plant species and changes in the water cycle and the most direct consequence of all in the form of emissions of large quantities of greenhouse gases leading to global warming

. **Rising unemployment**: on the other hand, a high number of workers exist for a limited number of vacancies and this seems destined to lead to high rates of joblessness in the future. This in turn could provoke rising crime and social revolt.

Rising living costs: all the above will lead, at the end of the day, to increasing living costs in most countries. Fewer resources, less water, the packing of many people into confined spaces and a lack of money are provoking an increase in the cost of living whereby only a percentage of the population will be able to cover all their needs.

Technological advances: on the positive side, high concentrations of people in urban areas also brings with it research and development in the quest for solutions to the population's needs. An example is the popularisation of communication technologies and the generation, collection and use of Big Data for sustainable ends, as well as the emergence of Smart Cities adapted to ensure good living conditions for the increasing population.

The **depopulation of rural areas** in favour of cities may, paradoxically, create major challenges for such places. It results in a growing number of under-utilised infrastructures, due to migration away from these rural areas, and previously domesticated landscapes whose ecosystems deteriorate without human attention. As you can see, the **impact of overpopulation** is tremendous. **Overpopulation** is **one of the biggest challenges humanity is facing and threatens the nea**of the planet in economic, environmental and social terms.

4.8 Let us sum up

• Under Socio-demography, we study birth rate, death rate, age structure, marital status, sex ratio, etc.• Malthusian theory is based on three principles : Population growth rate, food material growth rate, birth control1.8 cr. population increased every year in India, which is equal to Australian population.• According to 2011 census, Total population is 121.01 Cr., with 62.37 cr. (51.53%) male and 58.64 cr. (48.46%) female.• 2011 Census shows sex ratio 940/ 1000 male and literacy is 74.04% in India.

4.9 Unit end exercises

1 Analyse National Population policy

2 What are the causes over population?

4.10Answer to check your progress

4-10-1 NATIONAL POPULATION POLICY

It was long before procuring our Independence even that several discussion benches saw the onset of population policy. Much before Independence; in the year 1938 only a Sub Committee on population was set up by the National Planning Committee appointed by the Interim Government. The National Planning Committee passed a resolution in 1940 that stated the need for the state to adopt family planning and welfare policies in order to bring about a harmonious order of social economy. The resolution also stressed the need of limitation of children.

April, 1951 recorded further enhancements in this policy formulation as the First Five Year Plan labeled for an overt population policy and adjudged family planning as a pragmatic and essential step towards improvement in health of mothers and children. It was because in the plan, family planning was treated as a part of the health program and received a 100% funding from the centre government. And with each passing year, the amount of these funds has increased. The success of this family planning agenda was so dear to the heart of the government that even a separate department coined as Department of Family Planning was carved out in the Ministry of Health in the year 1966. This was done with an objective to reinforce the population control program.

This National Population Policy was further modified and re announced in 1977. In this new policy, what was reinforced was education and health. The latter component of the reformulated policy included the general as well as maternal and child health both. A voluntary family planning was also introduced here on. This also saw the change of the phrase from Family Planning to Family Welfare program that is maintained till date.

Population growth is determined by fertility rates (the number of children per adult) – fatality rates. Birth rates and mortality rates are, in turn, determined by a combination of factors. Often economic growth and economic development have led to a decline in population growth, but there are no hard and fast rules and other factors, such as availability of family planning, social expectations and government intervention can play an important role. factors influencing population growth

Economic development. Countries who are in the early stages of economic development tend to have higher rates of population growth. In agriculturally based societies, children are seen as potential income earners. From an early age, they can help with household tasks and collecting the harvest. Also, in societies without state pensions, parents often want more children to act as an insurance for their old age. It is

expected children will look after parents in old age. Because child mortality rates are often higher, therefore there is a need to have more children to ensure the parents have sufficient children to look after them in old age.

Education. In developed countries, education is usually compulsory until the age of 16. As education becomes compulsory, children are no longer economic assets – but economic costs. In the US, it is estimated a child can cost approx $230,000 by the time they leave college. Therefore, the cost of bringing up children provides an incentive to reduce family size.

Quality of children. Gary Becker produced a paper in 1973 with H.Gregg Lewis which stated that parents choose the number of children based on a marginal cost and marginal benefit analysis. In developed countries with high rates of return from education, parents have an incentive to have a lower number of children and spend more on their education – to give their children not just standard education but a relatively better education than others. To be able to give children the best start in life, it necessitates smaller families. Becker noted rising real GDP per capita was generally consistent with smaller families.

Welfare payments/State pensions. A generous state pension scheme means couples don't need to have children to provide an effective retirement support when they are old. Family sizes in developing countries are higher because children are viewed as 'insurance' to look after them in old age. In modern societies, this is not necessary and birth rates fall as a result.

Social and cultural factors. India and China (before one family policy) had strong social attachments to having large families. In the developed world, smaller families are the norm.

Availability of family planning. Increased availability of contraception can enable women to limit family size closer to the desired level. In the developing world, the availability of contraception is more limited, and this can lead to unplanned pregnancies and more rapid population growth. In Africa in 2015, it was estimated that only 33% of women had access to contraception. Increasing rates would play a role in limiting population growth.

Female labour market participation. In developing economies, female education and social mobility are often lower. In societies where women gain a better education, there is a greater desire to put work over starting a family. In the developed world, women have often chosen to get married later and delay having children (or not at all) because they prefer to work and concentrate on their career.

Death rates – Level of medical provision. Often death rates are reduced before a slowdown in birth rates, causing a boom in the population size at a certain point in a country's economic development. In the nineteenth and early twentieth century, there was a rapid improvement in medical treatments which helped to deal with many fatal diseases. Death rates fell and life expectancy increased.

Immigration levels. Some countries biggest drivers of population growth come from net migration. In the UK from 2000 to 2013, around 50% of net population growth came from net international migration. Countries like Japan with very strict immigration laws have seen a stagnation in the population.

Historical factors/war. In the post-war period, western countries saw a 'boom' in population, as couples reunited at the end of the Second World War began having families. The 'baby-boomer' period indicates population growth can be influenced by historical events and a combination of factors which caused a delay in having children until the war ended.

4-10-2What the responsible causes of overpopulation?

Answer to check your progress

CAUSES OF OVERPOPULATION

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live in cities of more than 300,000 inhabitants and which are expected to continuing growing until they reach 70% of the population.

Let us sum up

Family has been recognized as a basic unit of society and is a link between individual and community. The structure of the family continues to be patriarchal. A number of changes have been observed in the patterns of marriage such as age at marriage, inter-caste marriage, etc. A relative increase is noticed in divorce cases in urban areas. It was quite common in the past but at that time families were more stable and provided adequate security in terms of physical, social and emotional needs. Current rends indicate that there is a definite change in the basic system of family, especially the role of elders and disharmony in husband-wife relationship. Divorce rates are testimony to the increasing fragility of husband-wife relationship. Migration has major implications on women and children.

Although children in several set-ups, women, and the elderlies have been the subjects of various studies, investigations on the family as a whole are clearly very limited. There seems to be a general paucity of applied family research in India. Thus it is important to deliberate whether these studies can be considered applied in nature ¾ applied research is oriented towards outcome, rather than concepts, and it begins on the premise of usefulness and application. There is, therefore, a need to bring together under one umbrella, all research efforts which focus on specific aspects of family with the aim of influencing family practices and family policy development.

Unit end exercise

What are the major trends in fertility behaviour?

Examine the consequences of Rapid Growth of Population:

Answer to check your progress

Trends of Fertility Behavior:

1. Less developed countries have higher fertility rate.

2. Fertility rate is lower in urban area than rural areas.

3. Fertility of educated person is less than fertility of uneducated person.

4. Women with higher education have lower fertility rate.

5. Fertility rates are higher among manual and unskilled workers.

6. Higher income group has low fertility than lower income group.

In the history of mankind, long term economic growth is comparatively a recent phenomenon. The improvement in the economic conditions of nations has been associated with the industrial revolution. It radically transformed their economy. It brought about changes in the manufacturing processes. It also revolutionized other economic activities such as agriculture, transportation, commerce and banking. Social institutions and way of life were also influenced by the industrial revolution. These changes caused for several demographic trends. Decrease in mortality rate following substantial improvements in life styles, living standards and environmental situations influenced the population growth in developed regionas People in developed countries responded to increase in population growth by resorting to abortions by limiting the family size, by marrying late and by migration. The relationship between population growth and socio-economic development is very complex. The experiences of different countries vary in this regard. Out of those experiences it is stated that the high rate of Population growth is not desirable for socio- economic development.

4.11 Further Readings

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UNIT-V SOURCES OF DEMOGRAPHIC DATA. SOURCES OF DEMOGRAPHIC DATA, VITAL STATISTICS: POPULATION STRUCTURES AND PROJECTION; THEORIES OF POPULATION

Structure

5.1 Introduction

The term "Demography" is the statistical and mathematical study of the size, composition, and spatial distribution of human population, and of changes over time in these aspects through the operation of five processes of fertility, mortality, marriage, migration and social mobility. Usually the demographic data are drawn from various sources such as national censuses, civil registration system as well as the sample surveys.

5.2 Objectives

After studying this Unit you will be able to learn

The various demographic data

The application and its advantages of demographic data

Population structure and population projection

Theories of population

The important sources of vital statistics in India are:

1. Population Census
2. Civil Registration System

3. Demographic Sample Surveys such as those conducted by the National Sample Surveys Organization(NSSO)

4. Sample Registration System (SRS)

5. Health Surveys, such as National Family Health Surveys, (NFHS)

6. District Level Household Surveys (DLHS-RCH) conducted for assessing progress under the Reproductive and Child Health Programme..

(A) Census It is compiling, evaluating, analysing and publishing demographic, economic and social data pertaining, at a specific time, to all persons in a country or in a well delimited part of a country." In other words, the enumeration of the entire population of a country or a region at a particular time is known as census.

5. How a National Census is taken: Census taking is a very complex and extensive task and is, therefore, usually conducted by governments. In many countries, provision for census taking is made by law. While such a law makes the co-operation of each citizen mandatory, it also ensure that confidential nature of census information provided by individuals shall be preserved

6. In India, Census taking has been the responsibility of the Government from the very beginning. Even today, population census is a Union subject, with the Ministry of Home Affairs in charge. A senior officer of the Indian Administrative Service, with experience in the conduct of census operations, is generally appointed as Census Commissioner. There are thousands of enumerators, with a hierarchy of officers at various levels in between. For each State and Union Territory, an officer, designated as the Director of Census Operations, is appointed.

7. Taking into consideration the magnitude of the task, the entire administrative machinery of the State and local self-government is placed at the disposal of the Director of Census Operations. In rural areas, primary school teachers, village "patvaris" and other staff in local offices are generally appointed as census enumerators. The enumerator is the basic and the most important link in census operations. He has to visit every household within the area assigned to him and collect the required information.

Sr. No.	State	Population	Growth Rate	Area Sq.km	Density/Sq.km	Sex Ratio	Literacy
-	**India**	**1,210,193,422**	**17.64**	**3287240**	**382**	**940**	**74.04**
1	Uttar Pradesh	199,581,477	20.09	240928	828	908	69.72
2	Maharashtra	112,372,972	15.99	307713	365	946	82.91
3	Bihar	103,804,637	25.07	94163	1102	916	63.82
4	West Bengal	91,347,736	13.93	88752	1029	947	77.08
5	Andhra Pradesh	84,665,533	11.10	275045	308	992	67.66
6	Madhya Pradesh	72,597,565	20.30	308245	236	930	70.63
7	Tamil Nadu	72,138,958	15.60	130058	555	995	80.33
8	Rajasthan	68,621,012	21.44	342239	201	926	67.06
9	Karnataka	61,130,704	15.67	191791	319	968	75.60
10	Gujarat	60,383,628	19.17	196024	308	918	79.31
11	Orissa	41,947,358	13.97	155707	269	978	73.45
12	Kerala	33,387,677	4.86	38863	859	1084	93.91
13	Jharkhand	32,966,238	22.34	79714	414	947	67.63
14	Assam	31,169,272	16.93	78438	397	954	73.18
15	Punjab	27,704,236	13.73	50362	550	893	76.68
16	Chhattisgarh	25,540,196	22.59	135191	189	991	71.04
17	Haryana	25,353,081	19.90	44212	573	877	76.64
18	Delhi	16,753,235	20.96	1483	11297	866	86.34
19	Jammu and Kashmir	12,548,926	23.71	222236	56	883	68.74
20	Uttarakhand	10,116,752	19.17	53483	189	963	79.63
21	Himachal Pradesh	6,856,509	12.81	55673	123	974	83.78
22	Tripura	3,671,032	14.75	10486	350	961	87.75
23	Meghalaya	2,964,007	27.82	22429	132	986	75.48
24	Manipur	2,721,756	18.65	22327	122	987	79.85
25	Nagaland	1,980,602	-0.47	16579	119	931	80.11

(B) Civil Registration System According to the United Nations, civil registration is defined as the continuous permanent and compulsory recording of the occurrence of vital events, like, live births, deaths, foetal deaths, marriages, divorces as well as annulments, judicial separation, adoptions, legitimations and recognitions. Civil registration is performed under a law, decree or regulation so as to provide a legal basis to the records and certificates made from the system, which has got several civil uses in the personal life of individual citizens. Moreover, the information collected through the registration process provides very useful and important vital statistics also on a continuous basis at the national level starting from the smallest administrative unit. In fact, obtaining detailed vital statistics on a regular basis is one of the major functions of the Civil Registration System (CRS) in several countries of the world. Vital records obtained under CRS have got administrative uses in designing and implementing public health programmes and carrying out social, demographic and historical research. For an individual, the birth registration records provide legal proof of identity and civil status, age,

nationality, dependency status etc., on which depend a wide variety of rights.

Civil Registration System in India CRS gives data not only at the national level but also at the district and sub-divisional levels which are the basic units for the planning and implementation of health and family welfare services as well as several developmental programmes. At the local level, births and deaths are recorded by the Registrar or Sub-Registrar of specific area and the basic information is given to him by appointed informants (village level health workers/ICDS workers etc).

In case of household events, head of the household is responsible for reporting the event where as the Medical officer in-charge collects information on events taking place in hospitals, nursing homes, maternity homes etc. This information are compiled and provided in a standard format such as Form 2 for live births, Form 3 for stillbirths and Form 4 for deaths. This information is reported to the district Registrar or Addl. District Registrar who is the Medical Health Officer. In case of Municipalities (urban wards) with a population of 30,000 and more, every Registrar is expected to send monthly statement to the Chief Registrar.

Uses of civil registration Civil registration has a dual purpose − legal on the one hand, and statistical, demographic and epidemiological on the other. In the first purpose, the records generated have importance as legal records documenting the facts surrounding each registered vital event. In that sense, each vital record has an intrinsic importance of its own. For the second purpose , the records may be aggregated to form a body of vital statistics which, collectively, convey important information about the persons described in the statistics in summary form. Those two purposes reinforce each other in a number of ways, but it is important to maintain their distinctiveness in discussing the uses and operation of civil registration.

Uses of civil registration records for administrative purposes Live birth records are the basis for many public health programmes for post-natal care of mother and child, and may be used, when needed, for programmes of vaccination and immunization, premature-baby care, assistance to disabled persons. Death records are used to provide legal permission for burial or other disposal of deceased individuals. They can also provide information of epidemiological importance, and indicate the need for preventive control measures. Death records are also necessary to clear a number of administrative files, such as disease-case registers, population registers, social security files, military service files, electoral rolls, identity files and tax registers . Uses of civil registration records for Individuals For the individual, the birth registration records provide legal proof of identity and civil status, age, nationality, dependency status etc., on which depend a wide variety of rights. The birth registration record may be required for establishing, (i) Identity and family relationships for settling inheritance or insurance claims and arranging transfer of property (ii) Proof of age for admission in schools, entry into services and professions, obtaining a driving license, exercising voting rights, entering into legal contracts, inheritance claims, marriage

etc. (iii) Nationality or citizenship by birth, to obtain passport for foreign travel, qualify for voting privileges, own property

(C) Sample Surveys There are three systems which provide data on vital rates at the national level. These are National Sample Survey, Sample Registration System and in recent years, National Family Health Surveys. These surveys provide different kinds of data, but all of them provide certain fertility and mortality indicators. In view of their importance in the demographic data system of India at different points of time, these are discussed below.

National Sample Survey Data on fertility and mortality from the census are not very reliable and they are also available only once in ten years. In the absence of reliable data from the civil registration system (CRS), the need for reliable vital statistics at national and state levels is being met through sample surveys launched from time to time. At the instance of the then Prime Minister Shri Jawaharlal Nehru, a large scale sample survey agency known as National Sample Survey (NSS) came into existence in 1950 on the recommendations of the National Income Committee chaired by Late Professor P. C. Mahalanobis. In the 1950's and 1960's, the National Sample Survey attempted to provide reliable estimates of birth and death rates through its regular rounds. However, the release of 1961 census data indicated that the birth rates and death rates and consequently, the growth rates were often not estimated correctly. Many analysts, at that point of time, felt that the one time retrospective recall surveys such as National Sample survey may not be able to estimate the vital rates correctly. This resulted in a search for alternative mechanism estimate vital rates.

Objective of NSS NSS was started with the objective of filling up the gaps in essential statistics by collecting comprehensive data through sample surveys. A wide variety of subjects have been covered by the NSS. Broadly, these may be classified as socio economic (including demographic), agricultural survey and industrial enquiries. NSS is a nation-wide, large scale, continuing, integrated multi subject survey conducted in the form of rounds of one year duration, by a permanent ,whole time survey staff using the methods of personal interview and direct physical observation for providing data on various types of social, economic and agricultural characteristics, with provisions

(a) for assessing the precision of survey results,

(b) providing periodic progressive estimates and

(c) for other agencies such as states to participate in its work on a matching basis

2.Sample Registration System (SRS) The Government of India, in the late 1960s, initiated the Sample Registration System that is based on a Dual Recording System. In the Sample Registration System, there is a continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part-time enumerator and then, an independent six monthly retrospective survey by a full time supervisor. The data obtained

through these two sources are matched. The unmatched and partially matched events are re-verified in the field to get the correct number of events. At present, the Sample Registration System (SRS) provides reliable annual data on fertility and mortality at the state and national levels for rural and urban areas separately. In this survey, the sample units, villages in rural areas and urban blocks in urban areas are replaced once in ten years.

Objective

SRS The main objective of SRS is to provide reliable estimates of birth rate, death rate and infant mortality rate at the natural division level for the rural areas and at the state level for the urban areas. Natural divisions are National Sample Survey (NSS) classified group of contiguous administrative districts with distinct geographical and other natural characteristics. It also provides data for other measures of fertility and mortality including total fertility, infant and child mortality rate at higher geographical levels. In order to facilitate effective tracking of Millennium Development Goals (MDGs) on under-five mortality, the estimates of Under-5 mortality rate for India and bigger states separately for rural & urban and also by sex have been made a regular feature of SRS - Annual Statistical Report starting from the year 2008.Similarly, the estimates of maternal mortality generated under the domain of SRS starting from 1997 provides important inputs for tracking of MDGs on maternal mortality.

Structure of the Sample Registration System The main components of SRS are: (i) Base-line survey of the sample units to obtain demographic details of the usual resident population of the sample areas (ii) Continuous (longitudinal) enumeration of vital events pertaining to usual resident population by the enumerator (iii) Independent retrospective half-yearly surveys for recording births and deaths which occurred during the half-year under reference and up-dating the House-list, Household schedule and the list of women in the reproductive age group along with their pregnancy status by the Supervisor (iv) Matching of events recorded during continuous enumeration and those listed in course of half- yearly survey;

3. Health Surveys In the past about a decade or so, a few important sources for demographic data have emerged. These are the National Family Health Surveys (NFHS) and the District Level Household Surveys (DLHS) conducted for the evaluation of reproductive and child Health programmes. Three rounds of NFHS surveys have since been completed. These provide estimates inter-alia of fertility, child mortality and a number of health parameters relating to infants and children at state level.

They also provide information on the availability of health and family planning services to pregnant mothers and other women in reproductive ages. The DLHS provide information at the district level on a number of indicators relating to child health, reproductive health problems and the quality of services available to them. Three rounds of DLHS surveys have been conducted so far.

NATIONAL FAMILY HEALTH SURVEYS

India's first National Family Health Survey 1(NFHS-1) was conducted in 1992–93. The primary objective of survey was to provide national and state level data on fertility, nuptiality, family size preferences, knowledge and practice of family planning, the potential demand for family planning services, the level of unwanted fertility , utilization of ante natal care services breast feeding and food supplementation practices, child nutrition and health immunization and infant and child mortality. Financial assistance for NFHS was provided by the United States Agency for International Development (US AID).The Ministry of Health and Family Welfare (MOHFW), Government of India, subsequently designated the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency to conduct the survey. 5.Reproductive and Child Health Survey under DLHS-RCH The Reproductive and Child Health (RCH) under District Level Household Survey (DLHS) is being implemented by the Government of India to provide quality services at the grass-root level and to estimate the utilization of these services by the community. In the survey a shift was made from the method-mix target based activities to the client centred, demand driven quality services. This approach was adopted in order to change the attitude of the service providers at the grass-root level and to increase It took into consideration not only to generate district level data on utilization of services but also the people's perception about the quality of services. In view of the above RCH under took the Rapid Household Survey and the Facility Survey in all the districts of the country in two phases. Phase-I started in the year 1998-99 and Phase-II in 2002-04. IIPS was chosen as a Nodal Agency for collecting data and preparation of reports by the Ministry of Health and Family Welfare. In Phase-I approximately 50 percent of the districts from each state and union territory were covered and the remaining districts were taken up in the second phase.

The survey focuses on coverage of antenatal care, immunization services, extent of safe deliveries, contraceptive prevalence and unmet need for family planning, awareness about RTI/STI and HIV/AIDS and utilization of government health services. Apart from this, information on birth history from all ever married women is also collected during the survey that can provide vital rates at the district level. Currently the third round of DLHSRCH data collection is under progress in all the states of India.

Summary and Conclusions The Indian census has been a goldmine for the population data including vital events where one can get the estimates even below district level. However, it has the limitation that the fertility rates are not reliably improved over time though the mortality rates estimated indirectly comes out reasonable good, at least for the larger state. Despite of tremendous efforts to improve the quality of data in different population census, it suffers from three major limitations hampering extensive use of census data in micro-level planning and programme implementation. In fact, the nature and pattern of coverage and contents errors and changing definitions of certain tangible indicators over different census restrict extensive use of these data in tracking the progress in millennium development goals set for India.

5.3 SOURCES OF DEMOGRAPHIC DATA:

CENSUS:

A census of population may be defined, as the total process of collecting, compiling and publishing demographic, economic and social data pertaining at a specified time of times, to all persons in a country. The census is the collection of information about birth, death, occupation, social and economic conditions of the people. A census is the procedure of systematically acquiring and recording information about the members of a given population. It is a regularly occurring and official count of a particular population. The term is used mostly in connection with national population and housing censuses; other common censuses include agriculture, business, and traffic censuses. The United Nations defines the essential features of population and housing censuses as "individual enumeration, universality within a defined territory, simultaneity and defined periodicity", and recommends that population censuses be taken at least every 10 years.

United Nations recommendations also cover census topics to be collected, official definitions, classifications and other useful information to coordinate international practice. According to V.M. Dandakar, " A census of population is the total process of collecting, compiling, evaluating, analyzing and publishing demographic, economic and social data pertaining at a specific time, to all persons in a country or in a well delimited part of the country." Census has become a very popular method of collecting information about the people. It helps not only in collecting figures but is also much more informative beyond that. It provides information about the economy of the nation, rate of birth and death, rural-urban migration, living standard of the people, family size, educational achievements, etc. The word is of Latin origin; during the Roman Republic, the census was a list that kept track of all adult males fit for military service. The modern census is essential to international comparisons of any kind of statistics and censuses collect data on many attributes of the population, not just how many people there are, although population estimates remain an important function of the census.

5.4 History

Our Redeemer Lutheran Church, Encyclopaedia Britannica and Roman Empire explain that the English word "census" comes from the Latin word "censere." Ancient Romans used this term to refer to the official population count of the Roman empire. The Caesars of ancient Rome used this census information not only for tax purposes, but also to get an idea of how the Roman empire was expanding. Similar census took place in nations and empires such as China, Egypt and Palestine. It was this kind of Roman census that, according to Christian theology, brought Mary and Joseph into Bethlehem, where Jesus Christ was born. For the Romans, the census was especially important because registering in the census established a Roman citizen's position within the Roman social hierarchy and ensured that Roman officials would not seize the citizen's property or sell him into slavery. It also gave the Roman people a sense

of unity and nationality, which was crucial to their culture. What people think of as the "modern census" with extremely specific demographic information really did not evolve until the 17th and 18th centuries.

Importance

In the United States, the population census is especially important because the government uses census data to determine how much funding to allot to specific programs, according to the United States Census Bureau. Other census are important for business operations and manufacturing, controlling wildlife, determining areas of need in communities and establishing laws and regulations.

Uses of Census data

In the nineteenth century, the first censuses collected paper enumerations that had to be collated by hand so the statistical uses were very basic. The government owned the data and was able to publish statistics themselves on the state of the nation. Uses were to measure changes in the population and apportion representation. Population estimates could be compared to those of other countries. By the beginning of the twentieth century, censuses were recording households and some indications of their employment. In some countries, census archives are released for public examination after many decades, allowing genealogists to track the ancestry of interested people. Archives provide a substantial historical record which may challenge established notions of tradition. It is also possible to understand the societal history through job titles and arrangements for the destitute and sick.

As governments assumed responsibility for schooling and welfare, large government departments made extensive use of census data. Actuarial estimates could be made to project populations and plan for provision in local government and regions. It was also possible for central government to allocate funding on the basis of census data. Even into the mid twentieth century, census data was only directly accessible to large government departments. However, computers meant that tabulations could be used directly by university researchers, large businesses and local government offices. They could use the detail of the data to answer new questions and add to local and specialist knowledge. Now, census data are published in a wide variety of formats to be accessible to business, all levels of governance, media, students and teachers, charities and researchers, and any citizen who is interested. Data can be represented visually or analysed in complex statistical models, to show the difference between certain areas, or to understand the association between different personal characteristics. Census data offer a unique insight into small areas and small demographic groups which sample data would be unable to capture with precision.

5.5 Vital Statistics:

Vital statistics are perhaps the most widely used national, state, and local data for identifying and addressing major public health issues. In the United States, legal authority for the registration of vital events (births, deaths, marriages, divorces, fetal deaths, and induced terminations of pregnancy [abortions]) resides with the states, and individually with New York City, the District of Columbia, and the U.S. territories. The states are the legal proprietors of these data and are responsible for maintaining registries and issuing copies of the records.

Registration of vital events or collection of vital statistics has its own background. In the past, the registration of vital events in most European countries was done by church and other religious bodies. It may be mentioned that till 1662 no use was officially made by the government of vital statistics. Dr.William Carr spent years of his active life for the development of national system of vital statistics and conducted several studies on health and mortality conditions. The system developed by him was followed by many countries of Europe. Today almost every country is collecting vital statistics. Providing information about vital events is now a legal obligation.

5.6 The History of Vital Statistics

The registration of births, marriages, and deaths has a long history in the United States, beginning with registration laws enacted by the Grand Assembly of Virginia in 1632 and the General Court of the Massachusetts Bay Colony in 1639. In enacting this legislation, the early settlers, who were predominantly English, were following English customs. Thus, Virginia law required the clergy to keep a record of all christenings, marriages, and burials in their parishes. The Massachusetts law differed from Virginia's in two important respects: it called for the recording of vital events (births, deaths, and marriages) rather than churchrelated ceremonies; and it placed responsibility for registration of vital events on government officials rather than the clergy. Little or no statistical use was made of such records, however—along with wills and property inventories, they were regarded primarily as statements of fact essential to the protection of individual rights, especially those relating to the ownership and distribution of property.

The impetus for the use of vital records as the basis of a public health data system came from the realization that records of births and deaths, particularly records of deaths by cause of death, could provide information needed for the control of epidemics and the conservation of human life through sanitary reform. The origin of vital statistics in the modern sense can be traced to an analysis of the English bills of mortality published by John Graunt in 1662. Similarly, the clergyman Cotton Mather noted, in 1721, during a severe smallpox epidemic in Boston, that more than one in six of the natural cases died, but only one in sixty of the inoculated cases died.

In the nineteenth century, the industrial revolution resulted in rapid urbanization, overcrowding of cities, and a deterioration of social and living conditions for large sectors of the population. Public health reformers became acutely conscious of the need for general sanitary reform as a means of controlling epidemics of disease, particularly cholera. These early sanitarians used the crude death statistics of the time to arouse public awareness of the need for improved sanitation, and in the process they pressed for more precise statistics through effective registration practices and laws. The work of Edwin Chadwick (1800–1890) and Dr. William Farr (1807–1883) in England and of Lemuel Shattuck (1793–1859)

Massachusetts was instrumental in the development of public health organization and practice, including the recording of vital statistics. Thus, the history of public health is largely the history of vital registration and statistics The United States Constitution provided for a decennial census but not a national vital registration system. To obtain national data on births, marriages, and deaths, the decennial censuses in the latter half of the nineteenth century included questions about vital events, such as: "Born within the year," "Married within the year," and "Disease, if died within the year." These census items were soon recognized as inefficient and the results as deficient. Therefore, when the Bureau of the Census was made a permanent agency of the federal government in 1902, the enabling legislation authorized the bureau to obtain annually copies of records filed in the vital statistics offices of those states and cities having adequate death registration systems and to publish data from these records. This marked the birth of the National Vital Statistics System. Ten states and cities provided death records to the Census Bureau in 1902. In 1915, birth registration was added to the system, and by 1933 all states were registering live births and deaths and providing the required data.

In 1946 responsibility for collecting and publishing national vital statistics was transferred from the Census Bureau to the U.S. Public Health Service, first in the National Office of Vital Statistics and later (1960) in the National Center for Health Statistics (NCHS). In 1987 NCHS became part of the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services.vital statistics, primarily records of the number of births and deaths in a population. Other factors, such as number of marriages and causes of death, by age groups, are regularly included. From these records can be computed birthrates and death (or mortality) rates from which trends are determined. The earliest known system of vital statistics was in China. In England the clergy was required as early as the 16th cent. to keep records of christenings, marriages, and burials; during the 17th cent. the clergy in France, Italy, and Spain began to keep similar records. The oldest continuous national records system is that of Sweden (since 1741).

The clergy and government officials in the colonies of North America began to record vital statistics in the 17th cent.; on a national level, the U.S. government started publishing annual records of deaths in 1900 and of births in 1915. The most striking trend shown by recent vital statistics is the rapid increase of the populations of nonindustrial countries due to a sharp decline in the mortality rate and an acceleration of the birthrate.

3. Sample Survey: This is another technique developed to collect primary data of interest to demographers, economists, anthropologists and other social scientists. That is, another method of data collection for population studies. In this, information is collected only from a sample of the population, which is representative of the whole and from which conclusions are drawn by the use of scientific methods. Since independence, the data on rural lives through these surveys have been collected on a great variety of topics in diverse field of social sciences including demography, sociology etc. The collection of data is mainly through three ways. That is, the survey conducted by National Sample Survey organization, city surveys sponsored by the research programmes committee of the planning commission and the demographic fertility and family planning surveys which have acquired popularity. The NSS a permanent organization established in 1950 with the board objective of obtaining a continues comprehensive information on social, economic, demographic and agricultural characteristics on entire country.

4. Dual Report System: Dual reporting system is another source of data collection. In many developing countries birth and death rates are incomplete and inaccurate. In order to get accurate data, the system of dual report has been introduced. In this system, each event is enumerated by two independent procedures; one is that of registration and the other is that of sample survey. The design of this system is based on an appropriate number of small geographic samples. In each of these sample areas, a continuous record is kept of the events of births and deaths as they occur. In the sample area, information about births and deaths along with the other relevant information is collected through periodic retrospective sample surveys. In 1963-64, a new system called the sample registration system was initiated in India, in which the technique of the dual report system was used.

5. Population Registers: Demographers use secondary data for their work. Population register is important secondary source of data collection. In many European countries maintenance of permanent population register, for certain administrative and legal reasons is considered absolutely necessary. The figures collected at the time of census are verified by it and gaps filled in where necessary. These also clarify population trends. This type of register is most perfectly maintained in Sweden. This register is prepared annually and on its basis itself matters regarding franchise, settlement and employment etc., are settled. In countries like Israel, Belgium, Korea, etc., population registers are important source of information. In this, name of every person in the country is entered along with some migratory movements of persons. It always help to know about the current information on such demographic problems as population size, vital events and internal migration.

6. International Publications: International publications are considered as important data source about population. UNO and other international organizations which contain very useful information about countries spread over different parts of the world. Demographic Year Book which is annually published by UNO. It contains information about population, size, area, density, population growth, population growth, fertility, mortality etc. Statistic Year Book is another publication about it. In world health organization bring out a monthly publication entitled, Epidemiological and Vital Records which contains information about many countries of the world on public health and mortality.

5.7 POPULATION STRUCTURE AND PROJECTION

Population structure means the 'make up' or composition of a population. Looking at the population structure of a place shows how the population is divided up between males and females of different age groups.

Population pyramid

Population pyramid is a graphical representation of age and sex composition of the given population. It tells what is the proportion of male and female in different age groups. In other words it is just like a ‘family picture’ (of the people living in given territory)

This gives valuable information for human resource planners. If the population pyramid shows higher proportion of children - then planner can think of controlling birth rate. If it is lower then, they can consider increasing birth rate. They can plan on how many teachers, school is needed and take action accordingly. Many of the Asian and African countries has broad based pyramid- indicating large proportion of children. If the proportion of old age population is high, means the society need lots of take care persons and health facility for them. Besides, they may think of bringing the working age people from somewhere else. See European or Japanese/Korean age pyramid- it had the broad apex and narrow base.

These are some of the simple example of use of population pyramid. There are many; ie market researchers, product developers etc find this information very valuable for their

The evolutionary significance of population structure

Population structure is one of the most studied and least understood aspects of population genetics. Broadly speaking, structure refers to any deviation from random-mating, and includes phenomena as inbreeding, associative mating (where reproduction is stratified among genotypes), and geographical subdivision. Geographical structure has received the most attention for two reasons. First, geographical structure is an inescapable fact of biology. Populations may be separated by oceans, mountains or deserts. Even when there are no barriers to gene flow, organisms do not disperse randomly across the species range – rather, they tend to remain close to where they were born. Under these

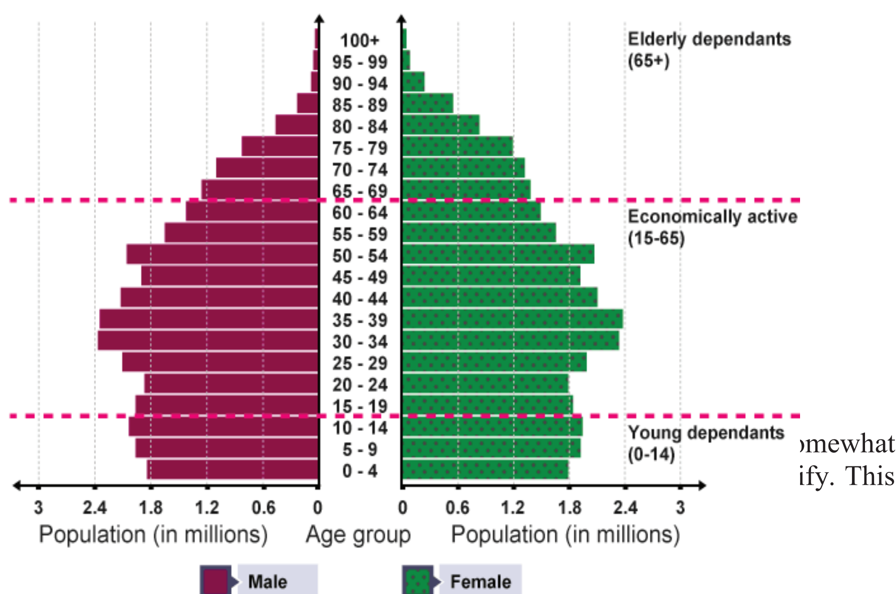
circumstances, genetic and phenotypic differences can accumulate between populations. The second reason is that differentiation between local populations must represent the early stages of speciation. It is a fundamental aim of evolutionary biology to understand how and why partially isolated populations diverge at both the genetic and phenotypic levels, and when this can lead to reproductive isolation and ultimately speciation. Because geography is the most important scale of population structure, it will be the major focus of this lecture.

5.8 Population pyramids

Population pyramids show the structure of a population by comparing relative numbers of people in different age groups. Population structures differ markedly between Less Economically Develop Countries LEDCs and More Economically Developed Countries MEDCs.

- The shape of a population pyramid can tell us a lot about an area's population.
- Usually pyramids are drawn with the % of male population on the left and % of female population on the right.
- It gives us information about birth and death rates as well as **life expectancy.**
- A population pyramid tells us how many dependants there are. There are two groups of dependants; young dependants (aged below 15) and elderly dependants (aged over 65).
- Dependants rely upon the **economically active** for economic support.
- Many LEDCs have a high number of **young dependants**, this means that the pyramid will have a wide base and the sides of the pyramid will ecrease as fewer people will reach old age However, many MEDCs have a growing number of **elderly dependants**, this will be shown by the pyramid having straight sides or a barrel shape. The pyramid will also be much taller.

IMPORTANCE OF POPULATION STRUCTURE



omewhat

ify. This

is the reason why population structure is a very important part of evolutionary genetics.

Advantages of Population Pyramid

1. only used to show population structure
2. figures are age-cohorts so some detail is lost in the data

What are the advantages and disadvantages of an ageing population?

The population structure of a country is often us usually matched by its stage on the demographic transition model. LEDC's in stages 2 -3 generally have very high birth rates and declining death rates. Their population pyramid has a wide base indicating a large youthful dependent population. In contrast MEDC's, in stages 4-5, have low birth and death rates and a rectangular shaped population `pyramid', indicating a large elderly dependent population.

There are many disadvantages of an ageing population. Britain within the last 50 years has seen the percentage e of elderly people (65 and over) double to 17% of the population and this figure will continue to rise to nearly 25% by 2040 (15million people). As people age, they become more dependent on the care of others. Traditionally, this care was provided by the family, and was not a problem with relatively low life expectancy. Nowadays with many people living into their 80's and 90's, the need for care presents a burden which many families cannot cope with. Increasingly care is provided in purpose-built accommodation (sheltered housing, retirement homes, etc) run by professional staff. Between 1985 and 1995 the number of people in homes for the elderly increased by over 10% and the number of hospice beds tripled. Elderly people need more than a home and meals, the y have specific needs in terms if medical care, day centers, transport and leisure. Today nearly half of the government's expenditure on social service benefits is accounted by elderly people with now over 60's out numbering under 16's for the first time ever.

An ageing population has several economic consequences. The major problem is funding welfare systems (pensions and healthcare). With the proportion of working people who create wealth and paying taxes falling whilst the proportion of elderly people dependent on the welfare system increasing funding the system is becoming increasingly difficult.

Japan has large aging population bringing many problems. It has life expectancy of 76.4 for men and 82.4 for women (the highest in the world). The average age of the population has risen from 31 in 1970 to 40 in the 1990's. It is expected to rise to 45 by the year 2025, the highest average age of any developed country. The numbers of those aged over 100 rose from 198 to 11 346 in the same period. This is destined to have a serious impact on the ratio between the number of people over 60 and those of working age. The current figure is 39% and this is expected to rise by 2% per year.

Economically Japan could suffer with reduction in labor supply,

constraint on economic growth, reductions in investment, changes in household savings and increased health insurance premiums.

The theme is clearly of immediate concern to developed countries where ageing is already well advanced and will continue, with considerable social and economic repercussions. In recent years, however, the process has gained significance also in developing regions where a number of countries have started to be concerned with the long - term implications of their ageing populations.

It is often assumed that in developing countries, ageing proceeds faster in urban areas where fertility and mortality declines are typically more advanced than in rural settings. In reality, however, ageing in rural communities usually manifests itself earlier and advances more rapidly than in the cities. By far the most important determinant is rural -to-urban migration, which comprises mainly younger adults and thus increases the proportion of older persons 'left behind' in the villages. In some rural areas, ageing is further accelerated by factors such as the return of older persons, often upon retirement from the urban workforce, or the increased mortality among younger adults due to HIV/AIDS. Thus, in the majority of poorer countries, ageing is predominantly a rural phenomenon. An aging population means
that there food supplies decrease in LEDC's leading to potential famines. This is because traditionally the younger people support the older generation and so they have less time to grow crops as well as a smaller workforce to produce the crops. Also an aging population will inhibit their development.

However there are some beneficial consequences of an ageing population. Some manufacturing companies have tapped into the growing niche market for products such as wheelchairs and stair lifts. The service sector has been boosted by the purchase of leisure and recreational facilities at off-peak times during the working week. A proportion of pensioners is sufficiently wealthy to bear the bear the full costs of their own healthcare , private nursing and residential care. Some large properties that were formally of little commercial value because of size and location have been converted into residential homes and become profitable. Many elderly people are great travellers and take advantage of the lower prices outside school holidays, which has helped to extend the tourist season and allowed hotels and tour companies to spread their costs over more of the year. Countries with a youthful, dependent population are usually in stages 2 and 3 of the demographic transition model. Here death rates are declining whilst birth rates remain fairly high leaving a large youthful population, as is the case for India. In India the birth rate in 1991 was 29/1000 whilst death rates were only 13/1000 with life expectancy of only 60, hence as much as 36% of the population are under 15 compared to only 19% in Britain. This causes a major problem to the country, mainly through rapid population growth. The main economic problem is finding enough resources to feed and provide jobs for the rapidly expanding population. The high dependent population means that good jobs are hard to find and as many as 74% live an agricultural subsistence way of life. Family workers who could be earning money must stay sat home and look after the children, as childcare cannot be afforded. Instead of the government using money to invest in the economy, thus increasing the economic output and hence GDP of the country it must

5.9 Meaning of Population Projections:

Population projections are calculations of future birth rate, death rate and migration of population based on their past and present conditions. They are neither predictions, nor forecasts, nor estimates. Rather they are in between predictions and forecasts. According to a UN Study, "Population projections are calculations which show the future course of fertility, mortality and migration. They are in general purely formal calculations, developing the implications of the assumptions that are made." In fact, they are only statements about birth rate, death rate and migration of population at some future date, based on certain assumptions. On the other hand, a "population forecast is a projection in which the assumptions are considered to yield a realistic picture of the probable future development of a population." Generally, forecasts are for short term while projections are for long term.

5.10 Types of Population Projections:

Population projections are of various types. We discuss them as under:

(1) Total Projections and Regional Projections:

Projections made for the whole country are called total projections. But when projections are made for a region, state or province, district or ethnic group, they are called regional or sectoral projections. Total projections are easy to make as compared with regional projections. This is because present and past data about birth and death rates and internal migration are not easily and accurately available for a region.

(2) Forward Projections and Backward Projections:

As a matter of fact, all projections are based on past data for the future population. They are called forward projections. However, in certain exceptional cases, projections are made about the past population. These are known as backward projections. Backward projections are made where population census has not been done or to check the correctness of past population data.

(3) High, Medium and Low Projections of Population:

Population projections are made on the basis of certain assumptions relating to birth rate, death rate and migration. If it is assumed that the birth rate is high, death rate is low, immigration rate is high and emigration rate is low, there is high projection of population. Such a projection is for less developed countries that are passing through the demographic transition stage. If it is assumed that there is medium increase in birth rate and death rate and medium increase in immigration rate and emigration rate, it is known as medium projection of population. Such a projection shows a medium increase in the growth rate of population due to the success of family planning and health services. Projection of this type is useful in fast developing countries. Low

projection of population is also suitable for developed countries on the assumptions that there are low birth and death rates and both immigration and emigration rates are also low.

Methods of Population Projection:

There are three methods of population projection – Mathematical Method, Growth Component Method, and Economic Method.

We discuss them as under:

(1) Mathematical Method:

The mathematical method is the earliest one to be used for population projection. In 1835, a French mathematician Quetelet propounded a theory about population projection in these words:

"The resistance or the sum of the obstacles opposed to the unlimited growth of population increases in proportion to the square of the velocity with which the population tends to increase." It means that the growth of population declines in proportion to the increase in density of population.

Verhulst in 1838 developed the S-shaped logistic curve. Recently, Pearl and Reed experimenting on fruit flies derived the logistic curve based on their conclusion that to begin with population grows at a slower rate and then exponentially at a faster rate. After a certain stage, it again grows at a slower rate and subsequently at a faster rate until it becomes stationary.
The S-shaped logistic curve is useful for making population projections. But because of its complicated mathematical formula, it is not used by demographers. However, demographers use simple arithmetic and geometric formulas and graphs for population projection.

Arithmetic Method:

In the arithmetic projection method, it is assumed that the annual change (increase or decrease) in population remains the same throughout the projection period and the crude birth and death rates are taken. The formula for such linear interpolation is $P = P_t + \frac{n(P_1 - P_2)}{N}$ were,

P_p– Population projection in the future;

P_1 = Present population as per the recent census; P_2= Size of population in the previous census;
n = Number of years between the projection year and the previous census; and N= Total number of years between the recent and previous census.

Geometric Method:

In the geometric method of projection, the formula is $P_p = P_1(1 + r)n$

where,

P_p= Projectedpopulation;

P_1 = Population as per the recent census;

r= Annual rate of increase or decrease of population; and n = Number of years.

This formula is the basis of Malthus's population projection.

It can be easily calculated like geometrical progression of the compound interest:

Limitations of Mathematical Method:

The mathematical method of population projection has been widely used. But it has its limitations.

1. It is neither an adequate nor a complete method of population projection to give information regarding age group.

2. The projection is done on the axiomatic assumption that the demographic projection of the future is based on the growth rate of the past and that the prevailing situation will remain in the future too. It is thus not a real index of either the future or past trends of population.

3. This method fails to make projections about birth rate, death rate and migration because it assumes them as constant.

4. It ignores the past and future socio-economic changes which affect population growth significantly. In fact, socio-economic changes can prove the projected information wrong.

5. It is possible that the formula for the logistic curve may not give an S-shaped curve due to the time series involved in it.

(2) Growth Component Method:

This method is more practical than the mathematical method of population projection. The growth component method, also known as the cohort component method, makes separate projections for birth rate, death rate and migration by age-sex groups. In making projections for the birth rate by age sex groups, the effects of fertility rate in females, marriage and re-marriage rate, sterilization rate of socioeconomic factors, of education, of divorce, of net reproduction rate, etc. on the birth rate are taken into account. Similarly, in making projections for the death rate, the infant mortality rate, expectation of life at birth, the ratio of the aged in the total population, maternity deaths, etc. are estimated on the basis of past census figures. At the same time, the effects of medical and public health services on the death rate are also taken into consideration. For making projections on migration, the past trends of emigration and immigration and changes in the rules of migration by other countries vis-a-vis the home country are used.

Thus by calculating separately the effects of birth rate, death rate and migration by age-sex group in each case, the projected total population is estimated by their summation. The correctness of growth component depends upon the assumptions made about birth rate,

death rate and migration rate. But there is every possibility that the assumptions may not be true and the projections may turn out to be incorrect.

Economic Method:

In the Mathematical Method and Growth Component Method of population projections, demographic estimates of future are given on the basis of population growth rate, birth rate, death rate and migration rate. But the factors really affecting them are not kept in mind due to which the projected statistical information remains changeable. Thus, in the effective economic method of population projection, how and to what extent the birth, death and migration rates are affected by economic factors are considered. Economic development is important for knowing the effects of migrations.

Due to regional economic development, people migrate from the backward areas to developed areas in search of jobs. In addition, the rural, urban, age and sex- wise number of projected labourers are to be estimated. Such changes, their effects on urbanisation and the consequent growth of towns, cities and urban centres and birth rate, death rate and growth rate of population in them are projected. This method is more useful for region-wise projections rather than for the entire country.

Importance of Population Projections:

Population projections have become very important in recent times in every field of the economy.

1. For Economic Development:

The process of industrialisation and urbanisation, the knowledge regarding the future conditions is not only limited to planners, economists or administrators but today entrepreneurs, traders and customers, too are worried about the future conditions. On the prevailing growth rate of population in developing countries that are passing through the stage of demographic transition, it is essential for the planners to know that how many houses, schools, teachers, job opportunities and how many quintals of food grains, and how many metres of cloth are to be increased. All these can be ascertained with the help of projections. Moreover, what should be the trends of export and import and how much foreign investment is required can be roughly estimated through population projections.

The size of population in rural areas, the pace of urbanisation, the possibilities of balanced regional development according to rural-urban population ratio, the contribution of agricultural resources in planning irrigation facilities, the rate of industrial development, etc. are some of the factors which require population projections.

2. For Social Development:

For looking into the future birth rate it becomes necessary to project the factors like level of education, development of education, female

education and size of the family, propaganda of family planning, effects of family planning on people, and by how much will the birth rate decline and how many years it will take to achieve any particular growth rate and what will be the changes in the age composition of the population. The birth rate can be projected on the basis of these factors.

3. For Business Classes:

Population projections are also necessary for entrepreneurs or business classes. If they know at what rate and of what size the population will increase in future, they will engage their productive resources in accordance with the demand estimated for the future, based on the projected figures. On the basis of age and sex-wise population projections they can estimate the future demand for their products and plan and produce accordingly. Thus projections play an important role in market mechanism.

4. For Demographic Theory:

In the 1930s, the popularity of the theory of demographic transition created the environment for population projections and its importance. With the help of the theory of demographic transition, the particular stage of demographic transition of any country can be known and after how many years it will reach the stage of economic development or what time will it take to pass from one stage to another, can be known by population projections.

5. For Planners:

Population projections help the planners to find out the trends in the growth of population between two censuses.

6. For Migration:

They provide estimates of future trends relating to migration at the national and international levels.

7. For Planning Adequate Investments:

According to the Indian Ninth Five Year Plan, population projections are required for planning adequate investments for: (i) essential necessities such as food, shelter and clothing; (ii) essential prerequisites for human development such as education, employment and health care; and (iii) optimal utilisation of the available human resources for economic and social development.

Limitations of Population Projections:

Population projections are made by institutions and demographers but theyare often incorrect.

The following are the limitations of population projections:

1. Wrong Assumptions:

Demographers do not use a uniform method for making population projections. The projections are bound to be incorrect because the mathematical and growth component methods are based on different assumptions. As pointed out by J.S. Davis, "It is not calculation of projection that is wrong but assumptions make a projection wrong."

2. Estimation of Mobility of Labour Difficult:

It is not possible to estimate correctly birth rate, death rate and migration rate due to the mobility of labour, especially in a developing economy. With development and structural transformation, there is large scale mobility of labour within and outside the country which cannot be projected correctly even for a short period.

3. Difficult to Estimate Age-Sex Structure:

Population projections may turn out to be wrong during the demographic transition stage because it is difficult to estimate correctly the age-sex structure of the population.

4. Conditions Likely to Change:

According to Gauman, "Demographic projections are like weather forcasting." Like weather, they are based on conditions and if conditions change during the calculation of projections, they may be incorrect.

5. Based on Hypothesis:

As population projections are based on hypothesis, they are many a time turn out to be untrue. W.G. Barclay opines: "Any calculations of future population are by their nature hypothetical."

6. Artificial and Undependable:

J.J. Spengler qoutes Schoeffler that, "economists have become accustomed to committing a considerable variety of artificialities in their collection, treatment, and interpretation of data. They artificially mechanize, simplify, generalize, systematize, fixate, factorize, close, semi-close, and isolate. Unavoidably, therefore, predictions about economic reality which are produced with the aid of those techniques are quite undependable." Despite these limitations, demographers and institutes continue to make population projections.

Conclusion to Population Projections:

Population Projections are important only when they are for a short period. The projections for long period are possible only in a static economy. When the economy is dynamic, and social, political and external factors affect it, the projections are rarely true. Pravin Visaria has shown that all projections in 1961 regarding India and Pakistan

proved to be false. This does not mean that projections should not be made or used.While making projections regarding birth and death rates,itshouldbekeptin mindthattheprojectionsforbirthrateareonly successful if the information like total number of females having fertility, marriage-remarriage rate, effect of family planning on citizens and its acceptance etc., is available. Similarly, for making projections of death rate, the number of population per doctor, daily calorie intake, disease-resistance power, per-capita income, development of medical facilities and economic development, etc. are the factors to be taken into account. If definite information is available regarding these and the projections are made consciously on the basis of such information for a short period, the projections are useful for demographic analysis.

THEORIES OF POPULATION

Malthusian Theory

Malthus thought that the dangers of population growth precluded progress towards a utopian society: Thomas Malthus was the first economist to declare a methodical doctrine of population in the year 1798. This theory was regarded a highly contentious since it had many incorrect senses with the economic changes that occurred in Europe in 19th and 20th century. Malthusian Theory Explained Malthus became widely known for his theories about change in population. His An Essay on the Principle of Population observed that sooner or later population will be checked by famine and disease. He wrote in opposition to the popular view in 18th-century Europe that saw is indefinitely greater than the power in the earth to produce subsistence for man". As a cleric, Malthus saw this situation as divinely imposed to teach virtuous behaviour.

Malthus appalled against the existing sanguinity shared by his father and Godwin that an ideal state could be accomplished if human fetters could be isolated. Malthusian hostility was that the heaviness of mounting population on the food supply would devastate perfection and there would be depression in the world. Malthus was relentlessly censured for his cynical outlook which directed him to trek on the continent of Europe to congregate statistics in sustaining his hypothesis. Malthusian Theory elucidates the affiliation amidst the growth in food supply and in population. It declares that population amplifies quicker than the food supply and if unimpeded it would consequent to desolation. In order to have a clear understanding of Malthus' 'Principle,' it is necessary to look closely at the logic underlying his argument. He stated that population increases 'geometrically' or exponentially and that subsistence increases arithmetically. Thus, population increases along the order of 1, 2, 4, 8, 16, 32..., whereas subsistence limps along at the rate of 1, 2, 3, 4, …. . That is, according to Malthusian theory of population, population increases in a geometrical ratio, whereas food supply increases in an arithmetic ratio. This disharmony would lead to widespread poverty and starvation, which would only be checked by natural occurrences such as

disease, high infant mortality, famine, war or moral restraint. His main contribution is in the agricultural sector. According to this theory there are two steps to control the population: preventative and positive checks. Preventative means control in birth rate, and uses of different methods to control birth; and positive checks means natural calamities,war,etc

That is in short, his principles are:

1. There are natural combining of genetic traits in human beings to increase at a fast rate. As a consequence, increase in population in statistical sequence if unimpeded two-folds itself every 25 years.

2. On the other hand, the food supply increases in a slow numerical sequence due to the function of that law of diminishing returns based on the presumption that the supply of land is invariable.

3. Since population increases in statistical progression and the food supply in the numerical sequence, population is likely to elude food supply. Thus an imbalance is created which directs to over populace.

4. To control over population consequent from imbalance of food and populace, Malthus proposed preventive measures and optimum checks.

The preventive measures such as control of birth rate, late marriage, celibacy, ethical moderation etc. has to be taken by man in order to control population. This was requested by Malthus to his countrymen to avoid depression. His theory was wrong because Malthus only considered two factors when he established his basic graph: food supply and population growth. Other factors such as improvements in technology proved him wrong. He was right at his time but development made him wrong. Moral restraint, vice and birth control were the primary preventative checks. Moral restraint was the means by which the higher ranks of humans limited their family size in order not to dissipate their wealth among larger numbers of heirs. For the lower ranks of humans, vice and birth control were the means by which their numbers could be limited - but Malthus believed that these were insufficient to limit the vast numbers of the poor. The positive checks were famine, misery, plague and war; because preventative checks had not limited the numbers of the poor, Malthus thought that positive checks were essential to do that job. If positive checks were unsuccessful, then inevitably (he said), famine would be the resulting way of keeping the population down. Before starvation set in, Malthus advised that steps be taken to help the positive checks to do their work. He wrote:

It is an evident truth that, whatever may be the rate of increase in the means of subsistence, the increase in population must be limited by it, at least after the food has been divided into the smallest shares that will support life. All the children born, beyond what would be required to keep up the population to this level, must necessarily perish, unless room be made for them by the deaths of grown persons. ... To act consistently, therefore, we should facilitate, instead of foolishly and vainly endeavouring to impede, the operation of nature in producing this

mortality, and if we dread the too frequent visitation of the horrid form of famine, we should sedulously encourage the other forms of destruction, which we compel nature to use.

Instead of recommending cleanliness to the poor, we should encourage contrary habits. In our towns we should make the streets narrower, crowd more people into the houses, and court the return of the plague. In the country we should build our villages near stagnant pools, and particularly encourage settlements in all marshy and unwholesome situations. But above all, we should reprobate specific remedies for ravaging diseases: and those benevolent, but much mistaken men, who have thought they were doing a service to mankind by projecting schemes for the total extirpation of particular disorders. If by these and similar means the annual mortality were increased ... we might probably every one of us marry at the age of puberty and yet few be absolutely starved. In Malthus' opinion, the masses were incapable of exercising moral restraint, which was the only real remedy for the population problem. They were therefore doomed to live always at bare subsistence level. If all income and wealth were distributed among them, it would be totally wasted within one generation because of profligate behaviour and population growth, and they would be as poor and destitute as ever. Paternalistic attempts to help the poor were therefore highly likely to fail. Also, they were a positive evil because they drained wealth and income from the higher (and therefore more moral) ranks of society. These people were responsible either in person or through patronage - for all the great achievements of society: art, music, philosophy, literature and so on owed their existence to the good taste and generosity of these people. Taking money from them to help the poor would deprive the world of culture.

Criticism

The Malthusian Theory had the following Criticisms. The geometrical and arithmetical theory was incorrect regarding population and food supply. He failed to anticipate the opening up of new areas in other countries like US, Australia and Argentina which had extensive farming. His law of mathematical progression regarding food supply pertain to any one point of time and not as a whole. One of the chief weakness of this theory is he failed to evaluate the man power. Malthusian failed to analyse and compare populace with the national wealth, instead he compared just with the food supply. Malthus only requested his men to control birth rate and was one sided. He failed to look into death rate which is diminishing which is the ultimate cause of population. In reality pragmatic evidence substantiates this thesis to be incorrect. Actually the population has to be matched up with the per capita income since when this increases, the fertility rate is lowered and the population rate declines. Preventive measures cannot be taken in the case of ethical moderation, late marriage, celibacy etc. to control population rate. Thus Malthus is regarded as a false mystic.

Its Applicability

Despite weakness, Malthusian doctrine contains much truth. This thesis may not be applicable to the countries like England and Europe but for some other countries which has a meagre landscape. In fact, the people of Europe were made miser by Malthus who forewarned them of the evils of the over populace. The very fact that people use preventive measures like late marriage, birth rate control on an extensive scale and various other contraceptives evidences the significance of the Malthusian Law. Thus Malthusian thesis is applicable to the countries like India. Walker was right when he wrote "The Malthusian Theory is applicable to all communities without any consideration of colour and place. Malthusian has stood unshattered, impregnable amid all the controversy that has regard around it."

2.2 Optimum population Theory

The Optimum theory of population was propounded by Edwin Cannan in his book “Wealth” Published in 1924 and popularised by Robbins, Dalton and Carr-Saunders. Unlike the Malthusian Theory, the optimum theory does not establish relationship between population growth and food supply. Rather it is concerned with the relation between the size of population and production wealth.

Definitions

Robbins defines as "the population which just makes the maximum returns possible is the optimum population or the best possible population." Dalton defines as "Optimum population is that which gives the maximum income per head." Carr-Saunders defines as "that population which produces maximum economic welfare."

Postulations

The natural resources of a country are given at a point of time but they change over time. There is no change in techniques of production. The stock of capital remains constant. The habits and tastes of the people do not change. The ratio of working population to total population remains constant even with the growth of population. Working hours of labour do not change. Modes of business organisation are constant.

Thesis

Based on the postulations the optimum populace is that ultimate size of population which affords the utmost income per head. Any climb or dwindling in the size of the populace above or below the optimum stage will lessen earnings per head. Specified the stock of natural resources the technique of production and the stock of capital in a nation, there is an explicit size of population matching to the highest per capita income. Other things being equal, any divergence from this optimum sized populace will direct to a drop in the per capita income, the nation is under populated and it can give to boost its population till it attain the optimum

level. Alternatively, if the rise in populace leads to lessen per capital income, the nation is over populated and requires a decline in population till the per capita income is maximised. This notion is shown in the pictorial representation as shown below.

In the first sketch, OE populace is weighed along the horizontal axis and per capita income on the vertical axis. In the beginning there is under-population and per capita income rises with the growth in population. The per capita income is EN which is less than the maximum per capita income FM. The OF size of population represents the optimum level where per capita income FM is the maximum. If there is a continuous rise in population from OF to OG then the law of diminishing returns applies to production. As a consequent the per capita production is lowered and the per capita income also declines to GH due to increase in population. Thus FG represents over population. This is static version of the thesis. The per capita income is the highest at the point where the average product of labour starts falling. This is represented in the following sketch.

The size of population is measured on the horizontal axis and the average product of labour on the vertical axis. NP is the average product of labour or income per head curve. Up till the level OP increase in population direct to a rise in the average product of labour and the per capita income. Beyond OP, the average product of labour and per capita income drops. Hence when population is OP, the per capita income is the highest at point L. Thus OP is the optimum level of population. To the left of OP the country is over populated and beyond OP, it is over populated. However OP is not a fixed point. If due to inventions there are improvements in the techniques of production, the average product of labour might increase and push the level of per capita income upward so that the optimum point rises. This is represented in the diagram where NP1 curve represents the higher average product of labour and point L1 shows the maximum per capita income at the new optimum level of population

CRITICISM ON OPTIMUM THEORY

1. NO PRACTICAL VALUE :- It is not possible in practice to find the size of population less than or greater than optimum population.

2. NOT AN INDEX OF ECONOMIC DEVELOPMENT :- The size of population cannot be an index of economic development. If there is a continuous increase adverse effect on the economy.

3. QUALITY OF PEOPLE IGNORED :- This theory does not throw the light on the quality of people. An honest and educated society per capita output will be more than others.

4. OTHER FACTORS IGNORES :- This theory ignores the social political and historical accident which are also essentials for economic development.

5. CONSTANT CHANGES :- The size of population is related to the national resources. Since the state of technology and resources are subject to constant changes. So its become very difficult to find out the optimum size of population.

2.3 Demographic Transition Theory

Demography is a science short on theory, rich in quantification. Nevertheless, demography has produced one of the best documented generalizations in the social sciences: the demographic transition. What is the demographic transition? Stripped to its essentials it is the theory that societies progress from a pre-modern regime of high fertility and high mortality to a post-modern regime of low fertility and low mortality. The cause of the transition has been sought in the reduction of the death rate by controlling epidemic and contagious diseases. Then, with modernization, children become more costly. Cultural changes weaken the importance of children. The increasing empowerment of women to make their own reproductive decisions leads to smaller families. Thus there is a change in values, emphasizing the quality of children rather than their quantity. In short, the fertility transition is becoming universal phenomenon, in which every country may be placed on a continuum of progress in the transition. Human overpopulation is a serious global phenomenon that is still taking place today. The demographic transition theory explains one of the methods in which overpopulation can slowly decline as a nation develops.

Definition

The demographic transition theory is a model that tries to explain the stages of population growth for nations over a period of time. For example, before industrialization many nations had significant high death and birth rates; however, this allowed the population to remain stable. For example, before the industrialization of Great Britain, its population had both high death and birth rates. By analyzing this value between death and birth rates and studying the growth of a population, theorists can evaluate how a nation increases in population based on its development. The demographic transition theory is often divided into four stages, however theorists also speculate that there may be a fifth or sixth stage. This article will speculate on the four stages. The demographic transition is a model and theory describing the transition from high birth and death rates to low birth and death rates that occurs as part of the economic development of a country. As countries industrialize, they undergo a transition during which death rates fall but birth rates remain high. Consequently, population grows rapidly. This transition can be broken down into four stages.

Stage One: The Pre-Industrial Stage

During the pre-industrial stage, societies have high birth and death rates. Because both rates are high, population grows slowly and also tends to be very young. Many people are born, but few live very long. In pre-industrial society, children are an economic benefit to families,

reinforcing high birth rates. Children contribute to the household economy by carrying water and firewood, caring for younger siblings, cleaning, cooking, or working in fields and household chores. With few educational opportunities, raising children costs little more than feeding them. As they became adults, children become major contributors to the family income and also become the primary form of insurance for adults in old age. Stage Two: The Industrial Revolution In stage two, as countries begin to industrialize, death rates drop rapidly. The decline in the death rate is due initially to two factors: Improved food production and improved health and sanitation. Food production is improved by more efficient agricultural practices and better transportation and food distribution, which collectively prevent death due to starvation and lack of water. Health improves with improved sanitation, especially water supply, sewerage, food handling, and general personal hygiene, as well as medical progress. As death rates fall, birth rates remain high, resulting in a population explosion. Population growth is not due to increasing fertility, but to decreasing deaths: Many people continue to be born, but now, more of them live longer. Falling death rates also change the age structure of the population. In stage one; mortality is especially high among children between five and 10 years old. The decline in death rates in stage two improves the odds of survival for children. Hence, the age structure of the population becomes increasingly youthful. In Western Europe, stage two occurred during the nineteenth century, with the Industrial Revolution. Many less-developed countries entered stage two during the second half of the twentieth century, creating the recent worldwide population explosion. Stage Three: Post-Industrial Revolution

During the post-industrial stage, birth rates fall, eventually balancing the lower death rates. Falling birth rates coincide with many other social and economic changes, including better access to contraception, higher wages, urbanization, commercialization of agriculture, a reduction in the value of children's work, and greater parental investment in the education of children. Increasing female literacy and employment lower the uncritical acceptance of childbearing and motherhood as measures of the status of women. Although the correlation between birth rates and these changes is widely observed, it is not certain whether industrialization and higher incomes lead to lower population or whether lower populations lead to industrialization and higher incomes. As birth rates fall, the age structure of the population changes again. Families have fewer children to support, decreasing the youth dependency ratio. But as people live longer, the population as a whole grows older, creating a higher rate of old age dependency. During the period between the decline in youth dependency and rise in old age dependency, there is a demographic window of opportunity called the demographic dividend: The population has fewer dependents (young and old) and a higher proportion of working-age adults, yielding increased economic growth. This phenomenon can further the correlation between demographic transition and economic development. Stage Four: Stabilization During stage four, population growth stabilizes as birth rates fall into line with death rates. In some cases, birth rates may even drop below replacement level, resulting in a shrinking population. Death rates in developed countries

may remain consistently low or increase slightly due to lifestyle diseases related to low exercise levels and high obesity and an aging population. As population growth slows, the large generations born during the previous stages put a growing economic burden on the smaller, younger working population. Thus, some countries in stage four may have difficulty funding pensions or other social security measures for retirees. So how does the demographic transition model relate to overpopulation? In a sense, it can depict how developed nations can contribute to a lower emphasis on population growth by adhering to certain principles such as having couples focus on having fewer children. In developed regions where there are significant populations (such as China) it is important to mandate certain ideas (such as contraception) in order to minimize population growth. By having countries follow through these stages, one can understand how overpopulation can be minimized due to the improving healthcare for birth and death rates as well as certain ideology that couples follow.

CRITICISM

It is not a theory in the strict sense of the term because it is only a broad generalization and does not encompass the experience of even all the western countries. It even does not fully explain after economic recovery. The theory does not provide a theoretical explanation of fertility which is so necessary for any demographic study. It does not extract fundamental processes from a phenomenon and identify crucial variables. Another limitation of this theory is that it cannot be applied with confidence in the developing countries.

In short, we can conclude that the demographic transition theory is an excellent benchmark for describing the how populations in societies have changed remarkably. One of the warnings that this theory presents for developed nations in stage four is the risk these countries might face with its low birth and death rates. If countries do not have an increase in birth rates, they may have a negative population growth as a result. For example, if the United States does not have an emphasis on population growth, it may see a drop in its total population due to the current ideology of couples having a minimum amount of children due to their ideology or economic condition.

Let us sum up

The scope of population studies is quite wide. Population study provides the learners with a knowledge and understanding of the prevailing population situation in their own country and the world. It also creates an awareness among the learners about the inter-relationships between population situation in their own country and the world. It assists us to make conscious rational and informed decisions regarding family size and population matters in the community and policy adopted by the Sate. It equips us with necessary knowledge, skills, attitudes, values to ascertain and evaluate the impact of population change both in terms of the students future, welfare and the welfare of their community, society, nation and the world. Population studies the nature, causes, changes, characteristics, co-operation and distributional aspects of human

population. It studies the relationships of man with his environment along with his quality of life. On the one hand, this subject is concerned with a quantitative study of the size, structure characteristics and territorial distribution of human populations and the changes occurring in them. On the other hand, it is concerned with the study of the underlying causes of population phenomena. Thus, a student of population is engaged in describing and comparing the size, structure, characteristics and territorial distribution of the population, and the changes occurring in it through the study of fertility, mortality, migration and social mobility. He also attempts to explain population phenomena and situations and the changes in them in the context of the biological, social, economic and other setting. For instance, population phenomena take place in a social setting and cannot be studied in isolation.

Hence, while describing, comparing or explaining the determinants and consequences of population phenomena, social phenomena have to be taken into consideration. It can be seen that the study of population is multidisciplinary in nature, involving an understanding of biology, genetics, mathematics, statistics, economics, sociology, cultural anthropology, psychology, politics, geography, medicine, public health, ecology, etc. It is also implied in this description that the subject matter of population studies includes the study of fertility, mortality, migration and social mobility, that is, the components of change in the size, structure, characteristics and distribution of population**.**

5.11 Unit end exercises

What do you mean by population projection?

Explain the theories of population (Malthusian theory)

5.12 Answer to check your progress

Population Projections are important only when they are for a short period. The projections for long period are possible only in a static economy. When the economy is dynamic, and social, political and external factors affect it, the projections are rarely true. Pravin Visaria has shown that all projections in 1961 regarding India and Pakistan proved to be false. This does not mean that projections should not be made or used. While making projections regarding birth and death rates, it should be kept in mind that the projections for birth rate are only successful if the information like total number of females having fertility, marriage-remarriage rate, effect of family planning on citizens and its acceptance etc., is available. Similarly, for making projections of death rate, the number of population per doctor, daily calorie intake, disease-resistance power, per-capita income, development of medical facilities and economic development, etc. are the factors to be taken into account. If definite information is available regarding these and the projections are made consciously on the basis of such information for a short period, the projections are useful for demographic analysis.

Malthusian Theory

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progress towards a utopian society: Thomas Malthus was the first economist to declare a methodical doctrine of population in the year 1798. This theory was regarded a highly contentious since it had many incorrect senses with the economic changes that occurred in Europe in 19th and 20th century. Malthusian Theory Explained Malthus became widely known for his theories about change in population. His An Essay on the Principle of Population observed that sooner or later population will be checked by famine and disease. He wrote in opposition to the popular view in 18th-century Europe that saw is indefinitely greater than the power in the earth to produce subsistence for man". As a cleric, Malthus saw this situation as divinely imposed to teach virtuous behaviour.

Malthus appalled against the existing sanguinity shared by his father and Godwin that an ideal state could be accomplished if human fetters could be isolated. Malthusian hostility was that the heaviness of mounting population on the food supply would devastate perfection and there would be depression in the world. Malthus was relentlessly censured for his cynical outlook which directed him to trek on the continent of Europe to congregate statistics in sustaining his hypothesis. Malthusian Theory elucidates the affiliation amidst the growth in food supply and in population. It declares that population amplifies quicker than the food supply and if unimpeded it would consequent to desolation. In order to have a clear understanding of Malthus' 'Principle,' it is necessary to look closely at the logic underlying his argument. He stated that population increases 'geometrically' or exponentially and that subsistence increases arithmetically. Thus, population increases along the order of 1, 2, 4, 8, 16, 32..., whereas subsistence limps along at the rate of 1, 2, 3, 4, …. . That is, according to Malthusian theory of population, population increases in a geometrical ratio, whereas food supply increases in an arithmetic ratio. This disharmony would lead to widespread poverty and starvation, which would only be checked by natural occurrences such as disease, high infant mortality, famine, war or moral restraint. His main contribution is in the agricultural sector. According to this theory there are two steps to control the population: preventative and positive checks. Preventative means control in birth rate, and uses of different methods to control birth; and positive checks means natural calamities,war,etc

That is in short, his principles are:

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2. On the other hand, the food supply increases in a slow numerical sequence due to the function of that law of diminishing returns based on the presumption that the supply of land is invariable.
3. Since population increases in statistical progression and the food supply in the numerical sequence, population is likely to elude food supply. Thus an imbalance is created which directs to over populace.
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considered two factors when he established his basic graph: food supply and population growth. Other factors such as improvements in technology proved him wrong. He was right at his time but development made him wrong. Moral restraint, vice and birth control were the primary preventative checks. Moral restraint was the means by which the higher ranks of humans limited their family size in order not to dissipate their wealth among larger numbers of heirs. For the lower ranks of humans, vice and birth control were the means by which their numbers could be limited - but Malthus believed that these were insufficient to limit the vast numbers of the poor.

The positive checks were famine, misery, plague and war; because preventative checks had not limited the numbers of the poor, Malthus thought that positive checks were essential to do that job. If positive checks were unsuccessful, then inevitably (he said), famine would be the resulting way of keeping the population down. Before starvation set in, Malthus advised that steps be taken to help the positive checks to do their work. He wrote:

It is an evident truth that, whatever may be the rate of increase in the means of subsistence, the increase in population must be limited by it, at least after the food has been divided into the smallest shares that will support life. All the children born, beyond what would be required to keep up the population to this level, must necessarily perish, unless room be made for them by the deaths of grown persons. ... To act consistently, therefore, we should facilitate, instead of foolishly and vainly endeavoring to impede, the operation of nature in producing this mortality, and if we dread the too frequent visitation of the horrid form of famine, we should sedulously encourage the other forms of destruction, which we compel nature to use. Instead of recommending cleanliness to the poor, we should encourage contrary habits. In our towns we should make the streets narrower, crowd more people into the houses, and court the return of the plague. In the country we should build our villages near stagnant pools, and particularly encourage settlements in all marshy and unwholesome situations. But above all, we should reprobate specific remedies for ravaging diseases: and those benevolent, but much mistaken men, who have thought they were doing a service to mankind by projecting schemes for the total extirpation of particular disorders. If by these and similar means the annual mortality were increased ... we might probably every one of us marry at the age of puberty and yet few be absolutely starved. In Malthus' opinion, the masses were incapable of exercising moral restraint, which was the only real remedy for the population problem. They were therefore doomed to live always at bare subsistence level. If all income and wealth were distributed among them, it would be totally wasted within one generation because of profligate behaviour and population growth, and they would be as poor and destitute as ever. Paternalistic attempts to help the poor were therefore highly likely to fail. Also, they were a positive evil because they drained wealth and income from the higher (and therefore more moral) ranks of society. These people were responsible either in person or through patronage - for all the great achievements of society: art, music, philosophy, literature and so on owed their existence to the good taste and generosity of these people.

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5.13 Suggested Readings

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UNIT VI FAMILY PLANNING: SCOPE, CONCEPT OF ELIGIBLE COUPLE AND CHILD PROTECTION RATE; IMPORTANCE OF POPULATION CONTROL

Structure

6.1 Introduction

India's population has already reached 1.26 billion in the current year and considering the present growth rate, by 2028, the country's population will be more than China, according to a recent report from the UN. Though, the report has clearly mentioned that the rate of population growth has slowed down in recent years, due to effective implementation of family planning and family welfare programmes, yet the rate is growing at a much faster rate compared to China. The national fertility rate is still high which is leading to long-term population growth in India.However, the family planning programme in India cannot be ignored. Let us discuss below about family planning in India and how it has played a major role in solving the problem of population growth in India to a certain extent:

6.2 Objectives

After studying this unit you will be able to learn
The concept of family planning
The importance and impact of family planning
The child protection rate
The controlling measure of population

Definition

Family planning implies that a couple discusses when and how many children they can have so that they can give the utmost care to the child, financially, psychologically and socially. In general usage we commonly associate terms like contraception and birth control with Family Planning but theoretically family planning is much more than that.

Family planning methods would include every measure that can be taken so as to give a couple their required freedom to determine when they want to have their children and what the time gap should be if planning more than one child.

6.3 History of Family Planning in India

Population growth has been a cause of worry for the Government of India since a very long time. Just after independence, the Family Planning Association of India was formed in 1949. The country launched a nationwide Family Planning Programme in 1952, a first of its kind in the developing countries. This covered initially birth control programmes and later included under its wing, mother and child health, nutrition and family welfare. In 1966, the ministry of health created a separate department of family planning. The then ruling Janata Government in 1977 developed a new population policy, which was to be accepted not by compulsion but voluntarily. It also changed the name of Family Planning Department to Family Welfare Programme.

6.4 Family Planning / Family Welfare Programme (FWP) by the Government in India

This is a centrally sponsored programme, for which 100% help is provided by the Central to all the states of the country. The main strategies for the successful implementation of the FWP programme are:

- FWP is integrated with other health services.
- Emphasis is in the rural areas
- 2-child family norm to be practiced
- Adopting terminal methods to create a gap between the birth of 2 children
- Door-to-door campaigns to encourage families to accept the small family norm
- Encouraging education for both boys and girls
- Encouragement of breast feeding
- Proper marriageable adopted (21 years for men and 18 years for women)
- Minimum Needs Programme launched to raise the standard of living of the people.
- Monetary incentives given to poor people to adopt family planning measures.
- Creating widespread awareness of family planning through television, radio, news papers, puppet shows etc.

6.5 Importance of Family Planning in India

Family planning is not confined to only birth control or contraception. It is important as whole for the improvement of the family's economic condition and for better health of the mother and her children. First of all, family planning highlights the importance of spacing births, at least 2 years apart from one another. According to medical science, giving birth

within a gap of more than 5 years or less than 2 years has a seriously affect the health of both the mother and the child.

Giving birth involves costs and with an increase in the number of children in a family, more medical costs of pregnancy and birth are involved, along with incurring high costs of bringing up and rearing the children. It's the duty of the parents to provide food, clothing, shelter, education to their children. Family planning, if adopted, has an effective impact on stabilising the financial condition of any family.

6.6 Impact of Family Planning Programme in India

The initiatives taken by the Government in implementing the Family Planning Programme have significant impact on the country as a whole. India was the first country in the world to establish a government family planning program way back in 1952. According to 2011 Family Welfare Programme, some major achievements are as follows:

- Awareness of one or more methods of contraception.
- Increase in contraceptives use over the years.
- Knowledge of female sterilization, which is considered to the most safest and popular method of modern family planning.
- Increase in the use of condoms.
- Increased knowledge about contraceptive pills.
- Fertility rate low among educated women.
- Fertility rate low among higher income groups.

Family Planning in India: More Success Expected
The family planning programmes are successful to a great extent but India still has a long way to go. Family planning has always been the main emphasis in population policies adopted by the Government of India. However, there is a need of more public awareness and public participation. Gender inequality, preference of sons over daughters, low standard of living, poverty, traditional thought processes of Indians, age-old cultural norms continue to cause poor family planning practices all across the country

.**Eligible Couples**
• Definition: a currently married couple wherein the wife is in the eproductive age (i.e. 15 -49 yr. of age)
• Appx. 150 – 180 eligible couples per 1000 population in India
• These couples are in need of family planning services
• The "eligible couple register" is maintained and updated by the ANM/ MPHW/ ASHA

Target Couples
• Eligible couples who have 2 – 3 living children
• These formed a priority group among the eligible couples
• Now even couples with just one or newly married couples are also considered a priority for family planning services
• Hence the term has now been replaced by 'eligible couple' only

Couple Protection Rate (CPR)
• It is an indicator of the prevalence of contraceptive practice in the community
• Definition: the percentage of eligible couples effectively protected against childbirth by one or the other approved methods of family planning
– Sterilization
IUD
–Condom
–OCP's
• NRR = 1 can be achieved only if the CPR > 60%

The word Population is defined as the group of all the living organisms of the particular species, in a particular geographical area, at a specific time with the capability of interbreeding.

6.7 Population control

What is Population Control?

Population control is the methodology or the practice used to control and maintain the type, location and number of people that inhabit the earth.Quality and status of life have undergone a drastic change over a century. We have to thank the improvised and advanced technologies around the world for this. One of the impacts of advanced technology on the economy is reduced mortality rate and increased the birth rate. This has led to one of the most dangerous problems crippling the world today viz. population explosion. India has grabbed its position among top powerful countries. India yesterday traveled far enough to reach what India is today. Lifestyle, status, and economy everything has reached a new milestone. Among this race, the population of India stands first. The population of India is 12 times of the population that prevailed during independence. Do we have to stop this? If yes, how?

Reproduction is necessary for continuing the existence of a species, but such an alarming growth will definitely lead to a shortage of many basic necessities. This thought marked the onset of family planning in India. In 1952, India became the first country which put population policy; today known as the First Five Year Plan, with the goal of controlling population explosion, but it failed. Later by the 1970's, the government came forward with more effective methods to control the population explosion. These included Medical Termination of Pregnancy Act (1971), posters and bills carrying birth control mottos, a minimum age for marriage, contraception etc.

Birth Control Methods or Contraception

Birth control is also known as contraception and fertility control, which is used to prevent pregnancy and to control the growth of the population.

Undoubtedly, we can say that it is the time to show a red signal to rapid population growth. There are certain easily accessible effective birth control methods which can help to avoid unwanted pregnancy as well as provide protection from sexually transmitted diseases (STDs).

Contraception is an artificial methods mainly used to prevent pregnancy as a consequence of sexual intercourse. Contraception is a method that prevents the birth by:

- Stopping the egg production.
- Keeping the egg distinct from the sperm.
- By stopping the fertilized egg attaching to the lining of the womb.

There are around fifteen to twenty different types or methods of contraception. But none of the contraceptive methods are ideal and 100% safe. Contraception promises a low rate of risk on proper use. Listed below are the safest methods of contraception.

- IUDs.
- Barriers.
- Implants.
- Injectables.
- Abstinence.
- Surgical methods.
- Oral contraceptives.
- Natural/Traditional method.

6.8 Measures to Control Population of India

Population of India is quite large and rapidly increasing. One percent growth rate means an addition of 1 crore people every year but actually speaking 2 crore persons are being adding every year. India's population has already reached 1.26 billion in the current year and considering the present growth rate, by 2028, the country's population will be more than China, according to a recent report from the UN. Though, the report has clearly mentioned that the rate of population growth has slowed down in recent years, due to effective implementation of family planning and family welfare programmes, yet the rate is growing at a much faster rate compared to China. The national fertility rate is still high which is leading to long-term population growth in India. However, the family planning programme in India cannot be ignored. Let us discuss below about family planning in India and how it has played a major role in solving the problem of population growth in India to a certain extent:

History of Family Planning in India

Population growth has been a cause of worry for the Government of India since a very long time. Just after independence, the Family Planning Association of India was formed in 1949. The country launched a nationwide Family Planning Programme in 1952, a first of its kind in the developing countries. This covered initially birth control programmes and later included under its wing, mother and child health, nutrition and family welfare. In 1966, the ministry of health created a separate department of family planning. The then ruling Janata Government in 1977 developed a new population policy, which was to be accepted not

by compulsion but voluntarily. It also changed the name of Family Planning Department to Family Welfare Programme.Family Planning / Family Welfare Programme (FWP) by the Government in India This is a centrally sponsored programme, for which 100% help is provided by the Central to all the states of the country. The main strategies for the successful implementation of the FWP programme are:FWP is integrated with other health services.

Emphasis is in the rural areas

2-child family norm to be practiced Adopting terminal methods to create a gap between the birth of 2 children Door-to-door campaigns to encourage families to accept the small family norm Encouraging education for both boys and girls Encouragement of breast feeding Proper marriageable adopted (21 years for men and 18 years for women) Minimum Needs Programme launched to raise the standard of living of the people.

Monetary incentives given to poor people to adopt family planning measures.Creating widespread awareness of family planning through television, radio, news papers, puppet shows etc.

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Awareness of one or more methods of contraception.

Increase in contraceptives use over the years.

Knowledge of female sterilization, which is considered to the most safest and popular method of modern family planning.

Increase in the use of condoms.

Increased knowledge about contraceptive pills.

Fertility rate low among educated women.

Fertility rate low among higher income groups.

A. Social Measure:

Population explosion is a social problem and it is deeply rooted in the society. So efforts must be done to remove the social evils in the country.

1. Minimum age of Marriage:
As fertility depends on the age of marriage. So the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women has be fixed by law. This law should be firmly implemented and people should also be made aware of this through publicity.

2. Raising the Status of Women:
There is still discrimination to the women. They are confined to four walls of house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.
3. Spread of Education:
The spread of education changes the outlook of people. The educated men prefer to delay marriage and adopt small family norms. Educated women are health conscious and avoid frequent pregnancies and thus help in lowering birth rate.
4. Adoption:
Some parents do not have any child, despite costly medical treatment. It is advisable that they should adopt orphan children. It will be beneficial to orphan children and children couples.
5. Change in Social Outlook:
Social outlook of the people should undergo a change. Marriage should no longer be considered a social binding. Issueless women should not be looked down upon.
6. Social Security:
More and more people should be covered under-social security schemes. So that they do not depend upon others in the event of old age, sickness, unemployment etc. with these facilities they will have no desire for more children.
B. Economic Measures:
The following are the economic measures:
1. More employment opportunities:
The first and foremost measure is to raise, the employment avenues in rural as well as urban areas. Generally in rural areas there is disguised unemployment. So efforts should be made to migrate unemployed persons from rural side to urban side. This step can check the population growth.
2. Development of Agriculture and Industry:
If agriculture and industry are properly developed, large number of people will get employment. When their income is increased they would improve their standard of living and adopt small family norms.
3. Standard of Living:
Improved standard of living acts as a deterrent to large family norm. In order to maintain their higher standard of living people prefer to have a small family. According to A.K. Das Gupta those who earn less than Rs. 100 per month have on the average a reproduction rate of 3.4 children and those who earn more than Rs. 300 per month have a reproduction rate of 2.8 children.
4. Urbanisation:
It is on record that people in urban areas have low birth rate than those

living in rural areas. Urbanisation should therefore be encouraged.

C. Other Measures:

The following are the other measures:

1. Late Marriage:

As far as possible, marriage should be solemnized at the age of 30 years. This will reduce the period of reproduction among the females bringing down the birth rate. The govt. has fixed the minimum marriage age at 21 yrs. for males and 18 yrs. for females.

2. Self Control:

According to some experts, self control is one of the powerful methods to control the population. It is an ideal and healthy approach and people should be provided to follow. It helps in reducing birth rate.

3. Family Planning:

This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control. According to Chander Shekher, “Hurry for the first child, Delay the second child and avoid the third.

4. Recreational Facilities:

Birth rate will likely to fall if there are different recreational facilities like cinema; theatre, sports and dance etc. are available to the people.

5. Publicity:

The communication media like T.V., radio and newspaper are the good means to propagate the benefits of the planned family to the uneducated and illiterate persons especially in the rural and backward areas of country.

6. Incentives:

The govt. can give various types of incentives to the people to adopt birth control measures. Monetary incentives and other facilities like leave and promotion can be extended to the working class which adopts small family norms.

7. Employment to Woman:

Another method to check the population is to provide employment to women. Women should be given incentive to give services in different fields. Women are taking active part in competitive examinations. As a result their number in teaching, medical and banking etc. is increasing rapidly. In brief by taking, all there measures we can control the growth of population.

6.9 Let us sum up

The way the population of the world is increasing it is likely that one day either we would have major scarcity of food and shelter or if we follow the process of constantly clearing jungles and provide food for the people in the world, we would over exhaust nature and that would lead to a grave natural disaster that might kill thousands of people. It has become a concern for the whole world now as to how to save the world from destruction and devastation that would be the consequence of over population. Individually all the countries in the world are taking up measures to limit and control the population of their country but then in most of the countries the rules are not rigid and the counter actions are not stern therefore the measures either have not been implemented well or in some cases have not been followed in a proper manner. Family

planning has been the key word in the run for development which the third world have been suggested time and gain but then their lack of infrastructure to spread the awareness in these countries have let condition deteriorate. Here we would discuss about family planning and its role in world development. Population control is the methodology or the practice used to control and maintain the type, location and number of people that inhabit the earth. Quality and status of life have undergone a drastic change over a century. We have to thank the improvised and advanced technologies around the world for this. One of the impacts of advanced technology on the economy is reduced mortality rate and increased the birth rate.

6.10 Unit end exercise

Explain the importance of family planning

What are the measures to control population?

6.11 Answer to check your progress

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Giving birth involves costs and with an increase in the number of children in a family, more medical costs of pregnancy and birth are involved, along with incurring high costs of bringing up and rearing the children. It's the duty of the parents to provide food, clothing, shelter, education to their children. Family planning, if adopted, has an effective impact on stabilising the financial condition of any family.

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It is on record that people in urban areas have low birth rate than those living in rural areas. Urbanisation should therefore be encouraged.
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The following are the other measures:
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2. Self Control:
According to some experts, self control is one of the powerful methods to control the population. It is an ideal and healthy approach and people should be provided to follow. It helps in reducing birth rate.
3. Family Planning:
This method implies family by choice and not by chance. By applying preventive measures, people can regulate birth rate. This method is being used extensively; success of this method depends on the availability of cheap contraceptive devices for birth control. According to Chander Shekher, “Hurry for the first child, Delay the second child and avoid the

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6.12 Suggested Readings.

1. Government of India, Family Welfare Programme In India Year book, Tenth five year plan. 2002-07. P065.

2. Government of India. Planning Commission. The first five –year plan a Draft outline. New Delhi 1951. P16.

3. Government of India. Planning commission.The first five-year plan.New Delhi 1953.P. 23.

4. Government of India, Planning Commission, The second five Year Plan, New Delhi: 1953, p. 7.

5. Government of India, Planning Commission, The second five Year Plan, New Delhi: 1953, p. 7-8.

UNIT VII FAMILY WELFARE PLANNING AND FIVE YEARS PLANS; OBJECTIVES, TARGETS AND ACHIEVEMENTS

Structure

7.1 Introduction

There is need of population control to established equilibrium between rapid growth of population and limited resources, likewise more or less food for body is injurious, so there is also need of optimum population for rapid economic development. In Indian society child is assumed as a gift of God. So due to superstitions, low economic level and lack of education, inspite of government effort we can not control birth rate as be expected. Family planning is necessary for the control of population in the country. Though India was the first developing country to adopted a bold population policy in 1951-52 yet its achievements in controlling its numbers have been far from satisfactory.

Family planning programme is identified as a necessary equipments for a family. In other words family planning means to keep numbers of family members according to our limited resources. The family which has more number of children so to arrange a particular kind of service for limited family and for the control of excess birth of child and various method of family planning and services and in addition to arrange medical treatement for those who are childless person and able them to produce child.This is salient feature of the programme. Mothers and infants health protection is also a part of family planning programme.
India is the second most populous country in the world sustaining 16.7 percent as the world population on 2.4 percent of the world's surface area. Realizing that high population growth is inevitable during the initial phases as demographic transition and there is urgent need to accurate the pace of the transition. India became the first country to formulate a National family planning programme in 1952. The objective of the policy was "reducing birth rate to the extent necessary to stabilize the population at a level consistent with requirement of national economy." The first five year plan stated that "the main appeal for family planning is based on considerations of health and welfare of the family. Family limitation or spacing of children is necessary and desirable in order to secure better health for the mother and better care and upbringing of children.

Measures directed to this end should, therefore, form part of the public health programme." This statement preceded the international conference on population and development (ICPD) 1994 by for decades.

7.2 Objectives

After studying this unit you will be able to understand
The concept of family welfare planning
Five year plans
The major achievements of each plan

1. First five year plan (1951 -1956)
2. Second five year plan (1956 -1961)
3. Third five year plan (1961-1966)
4. Fourth five year plan (1969-1974)
5. Fifth five year plan (1974-1979)
6. Sixth five year plan (1980-1985)
7. Seventh five year plan (1985-1990)
8. Eight five year plan (1992-1997)
9. Ninth five year plan (1998-2002)
10. Tenth five year plan (2002-2007)
11. Eleventh five year plan (2007-2012)

The First Five Year Plan (1951-1956): The population issue has engaged the attention of the planning Commission. The Draft Outline of the First Plan, published in July 1951, contained a section on "Population Pressure: Its Bearing on Development"' which recognized that India had a population problem. "The increasing pressure of population on natural resources retards economic progress and limits seriously the rate of extension of social services, so essential to civilized existence. A population policy is, therefore, essential to planning."2 The final version of the first Plan reiterated: "The Pressure of population in India is already so high that a reduction in the rate of growth must be regarded as a major desideratum."

The Second Five Year Plan (1956-1961): Pointed out that the rate of population increase was one of the key factors in development and underscored the fact that "a high rate of population growth is bound to affect adversely the rate of economic advance and living standards per capita. Given the overall shortage of land and of capital equipment relatively to population as in India, the conclusion is inescapable that an effective curb on population growth is an important condition for rapid improvements in income and in levels of living."4 It is important to note that the planning commission has never considered a population control programme as an alternative to socio-economic development. The population pressure was likely to increase; it accepted the need for curbing the birth rates. "This highlights the need for a large and active programme aimed at restraining population growth even as it reinforces the case for a massive developmental effort."

The Third Five Year Plan (1961-1966): While considering population control in the context of long term development, stated: "The objective of stabilizing the growth of population over a reasonable period must therefore be at the very centre of planned development."

The Fourth Five Year Plan (1969-1974): Viewed population not only from the point of view of economic development, but also from that of social change. "Under Indian conditions, the quest for equality and dignity of man requires as its basis both a high rate of economic growth and a low rate of population increase. Even far reaching changes in social and economic fields will not lead to a better life unless population growth is controlled. The limitation of family is an essential and inescapable ingredient of development."7

The Draft Fifth Five Year Plan (1974-1979): It concluded: "If family planning is less of a success than assumed above, the total increase in population would be even larger. It is of the utmost importance that family planning must achieve at least that much success as has been assumed for the above projections. Given the needed effort, it is as attainable target."8 The time and target oriented approach of family planning had been introduced in the fourth plan had been continued in the fifth plan. The fifth plan had also laid down targets "a target for a birth rate of 25 per thousand and a population growth rate of 1.4 percent by the end of the sixth plan period was expected and those targets were expected to be reached"9 The Ministry of health and family planning has introduced a national population policy.in April 1976, "The policy envisages a series of fundamental measures including raising the age as marriage, female education, spread of population values and the small family norm, strengthening of research in reproductive biology and contraception, incentives for individuals, groups and communities and permitting state legislatures to enact legislation for compulsory sterilization."
The Sixth Five Year Plan (1980-1985): The sixth five year plan laid down the long term demographic goal of reducing the net reproduction rate (NRR) to one by 1996 for the country as a whole and by 2001 in all states. The implication of this long –term demographic goals are as follows:

A. Birth rate per thousand population would be reduced from the level of 33 in 1978 to 21.
B. The death rate per thousand population would be reduced from about 14 in 1978 to- 09 and infant mortality rate would be reduced from 129 to 60 or less.
C. The average size as the family would be reduced from 4.2 children to 2.3 children.
D. As against 22 percent as eligible couples protected in 1979-80, 60 percent would be protected by the year 1984-85.
E. The population as India will be around 900 million by the turn of the century and will stabilize at 1200 million by the year 2050 A.D.11

Seventh five year plan 1985-1990: The draft of the seventh five year states that "the family welfare programme occupied an important position in the socio-economic development plans. It planned a crucial role in human resources development and in improving the quality of our people. It has formed an essential and integral part of 20 point programme which stressed the need for promotion of family programme

on a voluntary basis as a people's movement. The health policy had targeted a long-term demographic goal of reaching a net reproduction rate of 1 by the year 2000 A.D but a review as achievements of the sixth plan indicated that this goal could be reached only by the period 2005-2011.A total out lay as Rs.3256 crores was allocated for the family welfare programme during the seventh plan.12

Eighth five year plan 1992-1997: It was towards human development that health and population control are listed as two of the six priority objectives of the eighth plan. It was towards this end that population control. Literacy, Primary health care, provision of adequate food and safe drinking water employment generation and basic infrastructure were listed as priorities" To reinforce the sense of urgency and priority, along with the directional paper of eighth plan population control was also included as an agenda in the meeting of National Development Council held on December 23, 1991 and a Separate paper prepared by the planning commission" the eighth plan clearly recognized if the present trend of population growth did not halt, it would never be possible to render social and economic justice to millions of our masses. The eighth plan has targeted to achieve the following demographic goals by 1997.

A. Crude birth rate 26.1
B. Effective couples protection rate 56.1
C. Infant mortality rate 70.1
D. Literacy rate 75.1
E. Net reproduction rate equal to unity by the period 2011-2016 A.D.
In order to achieve the targets the govt. had prepared an "Action plan" which had following features.
 Improving the quality of family welfare services.
 Introducing a new packing as compensation and incentives with the co-operation of state Govt.
 Initiating innovative programmes in urban slums for propagating family welfare.
 Adopting a differentials strategy for focusing attention on 90 districts of the country where the crude birth rate is above 39 per thousand. Increasing the involvement as voluntary agencies and private organizations in family welfare programme. Linking grants that are provided to state governments for rural development and poverty alleviation to districts on the basis as their performance in the birth rate.
 Reducing a strong preference for a son on part of a family having one or two daughters by providing social security measures.

During eight plan, a sum as Rs. 6500 crores had been spent on the implementation of the programme the eight plan envisages a series of incentives and disincentives in order to promote and popularize the family planning programme. The incentives had been given to the employees of the central govt. state govt. and public sector undertakings who had accepted two-child family norm. these incentives included special increments cash award, priority in house building schemes and grant of leave travel concession benefits disincentives included, restriction on free medical benefits, no maternity leave no preference in

govt. services.

The govt. of India is the previous had appointed an expert group on national population policy under the chairmanship as Dr. M S Swaminathan which submitted its reports on 22 may 1994.The report had suggested a number of sociodemographic goals viz, the programme and the date is used for mid-course corrections. The Department has drawn up the national population policy 2000(N P 2000).which aims at achieving replacement level of fertility by 2010 and population stabilization by 2045 the national population policy 2000 has set the following goals.

A. Universal access to quality contraceptive services in order to lower the total fertility Rate to 2.1 and attaining two-child norm. B. Full coverage of registration of births, deaths and marriage and pregnancy. C. Universal access to information /counseling and services for fertility regulation and conception with a wide basket of choices. D. Infant mortality Rate to reduce below 30per thousand live births and sharp reduction in the incidence as low births weight (below 2.5kg) babies. E. Universal immunization as children against vaccine preventable disease, elimination of tetanus and measles. F. Promotes delayed marriage for girls, not earlier than age 18 and preferable after 20 years as age. G. Achieve 80 percent institutional deliveries and increase in the percentage as deliveries conducted by trained persons to 100 percent. H. Containing as sexually transmitted diseases.Complete elimination of marriage below the age as 18 Universal immunization of children Reducing infant mortality rate to 30 per 1000 births or less etc.

Ninth five year plan 1998-2002: Reduction in population growth is one of the major objectives as the ninth plan during the ninth plan period. The Department of family welfare implemented the recommendations of the N D C subcommittee. Centrally defined method specific targets for family planning were abolished. The emphasis shifted to decentralized planning at the district level based on assessment of community needs and implementation of programmes aimed at fulfillment of these needs. State specific goals for process and impact parameters for maternal and child health and contraceptive care were worked out and used for monitoring progress efforts were made to improve the quality and content of services through training to upgrade skills for all personal and building up a referral network. A massive pulse polio campaign was taken up to eliminate polio. The department of family welfare set up a consultative committee to suggest appropriate restructuring as in for structure funded by the states and the center and revise norms for re-imbursement by the center and has started implementing the recommendations of the committee monitoring and evaluation had become a part of the I. Reduction in maternal mortality Rate to loss than 100per one-lakh live births. J. Universalization as primary education and reduction in the dropout rates at primary and secondary levels to below 20 percent both for boys and girls.

Tenth five year plan 2002-2007: During the tenth plan. The paradigm shift, which began in ninth plan, will be fully operationalized. The shift was from. A. Demographic targets to focusing on enabling couples to

achieve their reproductive goals. B. Method specific contraceptive targets to meeting all the unmet needs for contraception to reduce unwanted pregnancies. C. Numerous vertical programmes for family planning and maternal and child to integrated health care for women and children D. Centrally defined targets to community need assessment and decentralized area specific micro planning and implementation of program for health care for women and children, to reduce infant mortality and reduce high desired fertility. E. Quantitative coverage to emphasis on quality and content of care. F. Predominantly women cantered programmes to meeting the health care needs as the family with emphasis on involvement as men in Planned Parenthood. G. Supply driven service delivery to the need and demand driven service. Improved logistics for ensuring adequate and timely supply to meet the needs H. Providing service provisions as per the choices and conveniences of the couple The population growth rate continued to be high due to … The large safe as the population in the reproductive age-group accounting for an estimated 60 percent as the total population on growth. Higher fertility due to the unmet need for contraceptives (contributing to around 20 percent of population growth).High wanted fertility due to the prevailing high infant mortality Rate and other socioeconomic reasons (estimated contribution as about 20 percent to population growth).

The Tenth plan had fully operationalized efforts to; 1. Assess and meet the unmet needs for contraceptives. 2. Achieve reduction in the high desired level of fertility through programmes for reduction in IMR and MMR and 3. Enable families to achieve their reproductive goals. If the reproductive goals of families are fully met the country would be able to achieve the national population policy replacement level of fertility by 2010.The medium and long term goals will be to continuing this process to accelerate the pace of demographic transition by 2045.Early population stabilization on will enable the country to achieve its developmental goal of improving the economic states and quality of life of the citizens.

Eleventh five year plan 2007-2011: The 11Th plan will continue to advocate fertility regulation through voluntary and informed consent.it will also address the special health care needs of the elderly, especially those who are economically and socially vulnerable. 1. Reduce infant mortality rate to 28 and maternal mortality rate 0 to 1 per 1000 live births 2. Reduce total fertility rate to 2.1 3. Provide clean drinking water for all by 2009 and ensure that there is no slip –backs Reduce malnutrition among children as age group 0-3to half its present level Reduce anemia among women and girls by 50% by the end as the plan Women and children: Raise the sex ratio for age a group 0-6 to 935 by 2011-12 and to 950 by 2016-17. Ensure that at least 33 percent of the direct and indirect beneficiaries of all government schemes are women and girls children Ensure that all children enjoy a safe childhood, without any compulsion to work. Outlay and expenditure as family welfare programme over different plan periods in India

Plan Out as total Investment outlay (%) Total Health
Family welfare Ayush
First plan 3.3 0.1 ---- 3.4
Second plan 3.0 0.1 ---- 3.1
Third plan 2.6 0.3 ---- 2.9
Fourth plan 2.1 1.8 ---- 3.9
Fifth plan 1.9 1.2 ----- 3.1
Sixth plan 1.8 1.3 ----- 3.1
Seventh plan 1.7 1.4 ------ 3.1
Eighth plan 1.7 1.5 0.02 3.2
Ninth plan 2.31 1.76 0.03 4. 02
Tenth plan 2.09 1.83 0.05 3.9
Eleventh plan 6.3 merged with Health 0.18 6.5
Source: Ministry of Health and Family Welfare. Family Welfare Programme in India Year book, 2011. Government of India.

Let us sum up

Analysis of the family planning programme during the past four decades reveals very clearly that the objective of bringing down the birth rate to a sustainable level remains as elusive as it was two decades before. This is particularly true because of the arbitrary, uninformed and unimaginative native of the decision-making at level of organization. D. Banerji has rightly attributed the failures of the family planning programme to the lapses in the decision-making which 'got compounded by a succession of blunders by successive decision-makers.' In the early 1950s, following the planned parenthood movement of the western countries the 'clinic approach' was adopted. This approach did not work as the conditions in India were quite different from those in European countries and the United States. On discovering that the clinic approach would not advance family planning movement, the decision-makers switched over to the 'extension approach.' The idea of extension approach was imported from the United States and like any other policy imported from the west was assumed to be an answer to the problem. Having discovered the failure of even this approach, the concern about human dignity and the individual's right to take decisions about one's own family got mellowed. At this stage, thinking in official circles started favouring introduction of an element of coercion in family planning programme. Naturally there was once again a change in approach. The new policy was characterized as the camp approach, 'which in practice meant herding a large number of motivated persons into camps by offering them cash incentives or compensation.' Its ugliest form was seen in this country during the emergency when, backed by authoritarian methods, its implementation proved to be disastrous for the entire family planning movement. In India, the family planning programme in spite of all its limitations has made some impact in the urban areas. Total fertility has declined in all states since the early 1970s. By the late 1990s, total fertility rate had declined to 1.8 birth in Kerala and 2.0 births in Tamil Nadu. Moreover, the estimated total fertility rates were close to the replacement level in Andhra Pradesh, Karnataka, Maharashtra, Punjab and West Bengal. Similar success in the rural areas of Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh is not easy to realize. Pravin Visaria argues, 'To

motivate the millions of dispersed in India's village to think about the consequences of their individual behavior for the abstract aggregate called the community or the country is an extremely difficult task. As and when they see a limitation of their family size to be in the interest of their family and/or their own children, they are unlikely to lay behind the better educated with respect to the adoption of contraception

Unit end exercises

Explain the family planning measure taken during seventh five year plan

Brief the third and fourth five year plan.

Answer to check your progress

Seventh five year plan 1985-1990: The draft of the seventh five year states that "the family welfare programme occupied an important position in the socio-economic development plans. It planned a crucial role in human resources development and in improving the quality of our people. It has formed an essential and integral part of 20 point programme which stressed the need for promotion of family programme on a voluntary basis as a people's movement. The health policy had targeted a long-term demographic goal of reaching a net reproduction rate of 1 by the year 2000 A.D but a review as achievements of the sixth plan indicated that this goal could be reached only by the period 2005-2011.A total out lay as Rs.3256 crores was allocated for the family welfare programme during the seventh plan.12

The Third Five Year Plan (1961-1966): While considering population control in the context of long term development, stated: "The objective of stabilizing the growth of population over a reasonable period must therefore be at the very centre of planned development."

The Fourth Five Year Plan (1969-1974): Viewed population not only from the point of view of economic development, but also from that of social change. "Under Indian conditions, the quest for equality and dignity of man requires as its basis both a high rate of economic growth and a low rate of population increase. Even far reaching changes in social and economic fields will not lead to a better life unless population growth is controlled. The limitation of family is an essential and inescapable ingredient of development."7

Further Readings

1. Government of India, Family Welfare Programme In India Year book, Tenth five year plan. 2002-07. P065.
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3. Government of India. Planning commission.The first five-year plan.New Delhi 1953.P. 23.
4. Government of India, Planning Commission, The second five Year Plan, New Delhi: 1953, p. 7.
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UNIT VIII POPULATION POLICY, POPULATION EDUCATION AND SEX EDUCATION; PHYSIOLOGY OF REPRODUCTION: REPRODUCTIVE ANATOMY AND PHYSIOLOGY, MENARCHE AND MENOPAUSE, FECUNDITY, FERTILITY, TREATMENT OF INFERTILITY; ADOPTION

Structure

8.1 INTRODUCTION

Policy is a definite course or method of action selected from among alternatives and is supposed to guide and determine, in the light of given conditions, present and future decisions. It is said to be a set of objectives along with the measures and means to achieve them. Public policy is one that is pressed into the service of the community or nation. Public policy

could, therefore be defined as the affirmation of the extent and scope of government intervention in societal affairs. Population policy should be viewed as a set of government actions–legislative and administrative—which intend to influence, after or modify some aspect of population. Aspects of population, which could obviously be addressed by a population policy are the modifiable features of population stock and its vital processes and events. In this unit, you will learn about the major concepts related to population policy and population education.

8.2 OBJECTIVES

After going through this unit, you will be able to:

- Discuss the Indian population policies
- Describe the kinds of population policy: fertility influencing and antinatalist
- Explain the concept of population education

8.3 INDIAN POPULATION POLICY

According to author of Principles of Population Studies, Asha Bhende (1983, p. 34), population policy may include all interventions undertaken by governments to influence demographic variables, either directly or indirectly, in order to modify population phenomena. Some would take demographic variables only as intermediary. Population policies are said to be measures programmes designed to contribute to the achievement of economic, social, demographic, political and other collective goals, through affecting critical demographic variables–the size and growth of population, its geographical distribution (national and international) and its demographic variables, either directly or indirectly, in order to modify population phenomena. Some would take demographic variables only as intermediary. The draft prepared by the group of Experts set up by the Government of India (1994) & headed by Swaminathan give an elaborate structure as to how the policy could be implemented and its implementation could be monitored. Some scholars try to categories the policy measure into five groups.

(i) demographic
(ii) economic
(iii) political,
(iv) ecological/environmental and
(v) social/ ethnic others categorize them as legislative and administrative.

Still others put them as direct and indirect measure. There could be many other ways. They could be cross-classified as well pure medical, including contraceptive and reproductive services as well as those save us from death would fall in demographic category. Monetary incentives/ disincentives to acceptors/non-acceptors as well as other fiscal measures as illustrated above fall in the economic category. Incentives to states and village institutions would partly be political. But measures affecting one's rights to contest or vote and/or measures freezing of seats for representation to legislative bodies are definitely political in nature. These days pollution is said to be the case of environmental degradation–neither consumption style nor production technology. Measures to improve environment are called environmental measures which may have to do something with migration particularly to cities. Social/ethnic measures may include differential policy prescriptions for different communities or ethnic groups.

Population policy can neither be universal nor can it be eternal. Two countries with same size of population and same rate of growth may find it prudent to pursue two different courses, one encouraging and the other discouraging further rise in growth rate, in the interest of their respective populations even though their cultural ethos may be same. Comparing the two approaches, Sen (1991) says : ‘There is real disanology (here) between

(1) arguments for compulsory birth control and other authoritarian means of influencing birth control population growth (varying from regulations for “One child family” to involuntary sterilization), &

(2) the case for public intervention in procurity and other facilities that expand people’s capability to lead the kind of life they have reason to value. Liberty & freedom are threatened by the former programmes in a way they are not by the latter.” There are two broad approaches. One is coercion approach, which in its extreme, recommends penalties to be imposed on parents who give birth to a child boy and a prescribed number or involuntary sterilization. For example, the Government of Maharashtra passed such a law in 1976, while the government of India adopted coercive measures including forced sterilization during the emergency. Though it is not possible to decide as to what is the optimum size of population for India under the existing conditions, no one denies the fact that the existing population of the country is larger than that can be sustained at its current level of development. Furthermore, the population explosion during the past five decades has somewhat nullified the gains of economic growth. This situation demands a clear and straight forward population policy. Jacob Viner has, however, serious doubts about remedial measures that can be undertaken in any developing country. He states, ‘What is most discouraging is that there are no easy and certain remedies for the overpopulation problem; that the remedy, birth control, which to most social scientists appears to be the only promising one requires a fairly high level of education and of income to be widely available and effective.’ However, despite their low levels of income, China and Sri Lanka have managed to bring down the rate of population growth to 1.5 and 1.4 per cent per annum respectively perhaps high rates of literacy and small family norm consciousness in these countries have contributed most to decline in their birth rates. Indian Experience in Policy Formulation: With over one billion population India is besieged by what the demographers have termed as ‘population explosion’. A very large and very fast growing population like India’s hampers the growth of economy through its harmful effects on such factors of production as natural resources, labour-supply and capital formation. To cope with such a situation, an appropriate policy to control the rapidly rising population is of paramount importance. The effect the population rise on natural resources may be assessed in two ways. One is when one takes into account only the land area of the country. Second is when one examines these resources in a broader sense to include, all that man has been endowed by Nature. While considering the land area in relation

1. National Population Policy, 1976

The National Population Policy was announced on 16 April 1976. It was completely at variance with the earlier population policy of the government. In the past, the importance of development and education had been recognized for restricting the rate of population growth, though the government's own programme was confined singularly to family planning. Until the declaration of the population policy in 1976, family planning was entirely voluntary; the government's role was restricted to motivating the people to accept the family planning and to providing clinical facilities and other services to its acceptors. The government however, gave up this approach in 1976. Rejecting the view that development and family planning go hand in hand, it declared that rapid population growth was thwarting economic development and thus a more positive approach was needed to check it. This change in approach was clearly reflected in the policy statement of the government: 'to wait for education and economic development to bring about a drop in fertility is not a practical solution. The very increase in population makes economic development slow and more difficult of achievement. The time factor is so pressing and the population growth so formidable, that we have to get out of the vicious circle through a direct assault upon this problem as a national Commitment.' The policy statement reaffirmed the government's commitment to bring down the birth rate to 25 per thousand by the sixth plan period. On the basis of the past experience, the government argued that this objective could not be attained by placing reliance entirely on voluntary family planning. Therefore, some more direct measures were conceived and announced. Raising the legal minimum age of marriage to 21 years for males and 18 years for females was a welcome measure, but its implementation was a doubtful proposition from the very beginning. Similarly, introducing population values in the education system and increasing the monetary incentive for sterilization were certainly desirable measures but in a conservative society like ours, these were not expected to contribute much to the success of family planning drive. The government thus decided to involve Zila Parishads and Panchayat Samitis, cooperatives teachers, workers' organizations and a number of voluntary agencies including women and youth organizations. The questionable measures were drawing of all government departments to motivate the 'Citizens to adopt responsible reproductive behaviour', and permission to state legislatures to pass legislation for compulsory sterilization. In an authoritarian political system, the corrupt administrative machinery invariably misuses its powers if it is drawn into the implementation of some Social Programme. In India, this actually happened during the emergency when despite the impressive figures of the persons covered under the family planning programme, the use of coercive methods discredited the entire family planning programme. Thus, the experiment of the government to pursue the so-called bold measures for lowering down the birth rate in a relatively short period ended in a fiasco.

2. The Family Planning Programme

Importance of the family planning programme as a device to control population explosion is universally recognized, so much so that even the decision makers in communist countries have shed their bias against it and have become receptive to the idea of small family norm. In China, for example the state has approved of one child norm and has succeeded in bringing down the birth rate to 12 per thousand as against 21.8 per thousand in India as per Census 2011. The factor which has contributed most to China's success on this front is widespread use of contraception. Now about 85 per cent of married women of child bearing age use contraception in China. As per NFHS-4 in 2015–2016, the CPR among currently married women was 53.5% for any methods of contraception. Even Sri Lanka has done better than India in this regard where about 62 per cent women use contraceptives and as a result birth rate has come down to 17.4. It is thus clear that in India with the exception by the states of Kerala, Tamil Nadu and Goa, the masses are not presently aware of need of family planning. The decision-makers in the government however, recognize its importance at this critical juncture. The following aspects of the family planning programme in this country deserve particular mention:

1. Public Information Programme: Under public information programme, couples in the reproductive age explained the usefulness of family planning. This is considered necessary for raising the level of consciousness of the people without which they will not accept any family planning programme. Hence the government has decided to use all media of publicity, including cinema, radio, television, posters and newspapers to publicize the importance of family planning. Once the idea of family planning catches up the imagination of the people, they will themselves voluntarily start practicing it.

2. Incentives and disincentives: The government has introduced various schemes under which incentives are being given to those who accept family planning. The system of cash prizes has given some inducement to the people to go in for sterilization since family planning is completely voluntary in this country. Coercive methods have been generally avoided. As mentioned earlier, during the emergency some excesses were committed, and forcible sterilizations were done. This caused widespread resentment among the people and there was a setback to voluntary family planning under the then situation, if small cash prizes fail to provide incentive to people to accept family planning, the government can take a policy decision that shows preference for employment will be given to the people who accept small family norm. Moreover, those who reject family planning may be denied certain facilities.

3. Family Planning Centres: Establishment of Family Planning Centres is an integral part of any family planning programme. Some attention has been given to this aspect of the programmes in India. These centres provide various clinical facilities needed for family planning. In addition to these clinical facilities, a large number of contraceptive distribution centres should also be located in both urban and rural areas.

4. Research: Research in the field of demography, communication action, reproductive biology and fertility control has to be given a high priority in any family planning programme. Generally, this aspect is ignored in

underdeveloped countries and under reliance is placed on family planning devices more suitable for developed countries. The Government of India, however, realizes the importance of research to obtain maximum results within the constraints of resources allocated to the family planning programme. 3. Family Planning Under Five Year Plans

In this section, you will study the family planning as order the five-year plans. The Earlier Phase During the first decade of economic planning, family planning programme was taken upon a modest scale with clinical approach. The emphasis was mainly on research in the field of demography, physiology of reproduction, motivation, communication and establishing central and state organizations in providing clinical services in pursuance of this policy, not only some family planning centres were opened in the urban and rural areas respectively but clinical facilities were provided in hospitals and health centres also. Although in this way a beginning was made in the field of family planning but considering the size of the country many demographers rightly believed that the family planning programme on this scale was of the little consequence. An urgency with regards to family planning was felt after the publication of the 1961 census results which showed a higher rate of population growth than anticipated. The third plan stated clearly that the objective of stabilizing the growth of population should be the central feature of planning and the family planning programme has to be adopted as the principal measure to realize this objective. Experts thought that the clinical approach was not enough, and the government thus decided to supplement it by the extension approach. The allocation of funds to the family planning programme was also increased but looking at the dimension of the problem, the total outlay (□ 24.86 crore) was also increased. In 1966, a separate department of family planning was created in the Ministry of Health. The administrative structure included the state family planning department which operated through a machinery at the district level. A series of service points aided by an extension system of male and female family planning workers was required to provide alternative contraceptive methods. Since family planning was voluntary the acceptors had the freedom to choose any of the contraceptive methods offered. This has been known as the 'Cafeteria approach'. To increase the motivational effect, mass media campaign was also organized. During the period 1966-69, the family planning programme was made target oriented and more funds were allotted to it, yet the results were far from satisfactory. The fourth five-year-plan provided a high priority to the family planning programme and allocated 330 crore to it. The programme aimed at reducing the birth rate from 39 per thousand to 25 per thousand population within the next 10-12 years. In order to attain this objective, a concrete programme was carried out for creating facilities for the couples in their reproductive period. The emphasis in the programme was on group acceptance of a small family norm, personal knowledge about family planning methods and ready availability of supplies and services. The basic approach of the government, however, did not change, as it continued to follow clinical approach aided with extension services. There was a significant shift in the strategy of the government under the fifth five-year-plan. In the first place, the government decided to carry forward the family planning programme in

an integrated manner along with health, maternity and child health care, and nutrition services at all levels. With this perspective, a decision was taken to convert vertical programmes, workers into multipurpose workers who were required to pay special attention to family planning work. Secondly, keeping in view the bold measures envisaged in the 1976 National Population Policy to restrict the rate of population growth, the fifth plan made a provision of 497.36 crore for the family planning programmes. Family Planning during the 1980s

The experience during the emergency once again proved that the family planning programme cannot be a substitute for development any attempt to force its pace without ameliorating the economic condition of the poor and changing the consequences of the people by educating the poor will have little chance of success. The Planning Commission in the sixth plan admitted the fact that this programme did not inspire the confidence of the people who viewed it as a routine government activity. Therefore, the need for projecting family planning programme as a people's programme was felt. On the recommendation of the Working Group on Population Policy set up by the Planning Commission, the long-term demographic goal of lowering down the net reproduction rate from the prevailing level of 1.67 to 1 by 1996 in the country as a whole and by 2001 in all the states was adopted. Keeping in view the goal, efforts were made to raise the proportion of eligible couples protected with family planning from 22 per cent at the beginning of the plan to 41.2 per cent in 1984-85. This was certainly an ambitious target and could not be realized. In 1984-85, out of an estimated 126.7 million couples, 45.1 million couples were protected from conception. They constituted 35.6 per cent of eligible couples. This failed to make any significant impact on crude birth rate which remained stuck at 33.5 per thousand. The government considered it necessary to develop national consensus on this subject. In order to bring about a fall in fertility rate, the plan, however did not envisage the use of coercive methods.

As explained above, nothing significant happened during the sixth plan period and the crude birth rate did not register any decline. But undaunted, the health policy fixed the target of the net reproduction rate of 1 by the year 2000. The Planning Commission, however, felt that this goal could be reached only by the period 2006-11. In order to make an advance towards this target at the desired rate during the seventh plan period, 42 per cent couples in the reproduction group should have accepted family planning methods, and this could have enabled cured birth rate to come down to 29.1 per thousand by the year 1990. Interestingly the seventh plan target of achieving couple protection rate of 24 per cent was achieved, but the crude birth rate remained marginally higher at 29.9 per thousand. Under the seventh plan, the performance in terms of various methods of couple protection was not uniform, while the targets for sterilization fell short by about a quarter, the targets for Inter Uterine Device (IUD) were achieved and those for oral and conventional contraceptives were exceeded. State-wise analysis of the family planning programme reveals that Kerala, Tamil Nadu, Maharashtra and Punjab performed well in achieving the targets while Uttar Pradesh, Bihar, Rajasthan, Assam and some North- Eastern states performed poorly. The New Strategy

Restricting population growth was not the most important objectives of the eighth plan. The plan had aimed at bringing down the birth rate from 29.9 per thousand in 1990 to 26 per thousand by 1997. This was a mode of target and was realizable provided the government succeeded in carrying out its strategy. Under the eighth plan, for population control there was stress on decentralized planning and implementation. The advantage of area specific strategy is that it allows scope for flexibility of approach. Under the ninth plan the central government's role was limited to general policy planning and providing technological inputs. Thus, the approach of the government was to make family planning programme as one of 'people's operation with government cooperation,'. Another important aspect of the strategy was to make the younger couples, who are reproductively most active, the focus of attention. This had become necessary because under the seventh plan while target of couple protection rate was achieved, it was not matched by a commensurate decline in the birth rate, possibly because of the lower coverage to the younger couples. The younger couples will now have to be prepared to accept a small family norm as a social responsibility. In the future, targeted reduction in the birth rate will be basis of designing and implementing the family planning programme against the existing approach of couple protection rate. From this point of view, the out-reach and quality of family planning services will be improved so far the system of cash incentives to adopters of sterilization programme has failed to make any impact on population growth. Therefore, the entire package of incentives and awards has to be restructured to make it more meaningful.

The possibilities of introducing certain disincentives to the non-adopters of family planning programme, the role of education, information and communications is widely recognized. These are now being considered as critical inputs by the planners and will thus be strengthened and expanded in the coming years. The research and development of methods aimed at regulation of fertility both in males and females will also be given a new thrust. National Population Policy, 2000

The National Population Policy, 2000 has outlined immediate medium-term and long-term objectives. The immediate objective is to meet needs of contraception, health, infrastructure, health personnel and to provide integrated service for basic reproductive and child health care. The medium-term objective is to lower down the total fertility rates to the replacement level by 2010. The long-term objective is to achieve a stable population by 2045. In this broad framework the National Population Policy, 2000 aims at the following: 1. Reduce maternal morality ratio to below 100 per one lakh live births. 2. Reduce infant mortality rate to below 30 per one thousand live births. 3. Achieve universal immunization of children against all vaccine preventable diseases. 4. Achieve universal access to information/counselling and services for fertility regularization and contraception with a wide basket of choices. 5. Promote delayed marriage for girls, not earlier than age 18 and preferably after 20 years of age. 6. Prevent and control communicable diseases. 7. Promote the small

family norm to achieve replacement levels of total fertility rates. 8. Bring about convergence in implementation of related social sector programmes to make family welfare a people centered programme. In pursuance of the National Population Policy, 2000, a National Commission of population was setup. The commission was review the implementation of the national population policy from time to time analogous to the national commission, state level commissions on population have been set up with the objective of ensuring the implementation of the population policy. Following table summarizes the population policy of the government of India during the period of planning.

8.5 POPULATION EDUCATION

One of the formidable problems which stare us in the faces, is our rapid increasing population, which offsets every endeavour for development. A need is being felt for imparting factual knowledge about the population dynamic, so that the younger generation may understand the nature and magnitude of the burden imposed by rapid population growth. Our population is increasing annually at a rapid rate of 1.6 per cent as per the Census 2011. India is next to China, has little less than three time the population of Japan. With the present growth rate, the country's population may reach the incredible figure of one-billion before the end of this century.

What is population education?

 An exploration of knowledge and altitudes about population, family and sex.

 Is all about the integration between Individual, Family, and society.

 Includes population awareness, family living, Reproduction, Education, Basic values. Let's have a detailed look at the different definitions of the term population education:

 According to UNESCO, 'Population education is an educational programme which provides for a study of population situation of the family, the community, Nation and world, with the purpose of developing in the students rational and responsible attitudes and behaviour towards that situation'. The National Seminar on Population Education held in Bombay gives a comprehensive definition of population education. 'It is essentially related to human resource development. It is not only concerned with population awareness but also with the developing values and attitudes which take care of the quality and quantity of population. It must explain to the students cause and effect relationship, so as to enable them to make rational decision on their own behaviour on population matters'. R.C. Sharma states, 'Population Education is the study of the human population in relation to his environment with a view to improve his quality of life without adversely affecting the environment.' According to International Study of the Conceptualization and Methodology of Population Education, 'Population education is an educational activity which is a part of a total social learning process; is problem centred; derives its content from population studies; is concerned primarily with populationrelated interactions of individuals, is aimed specifically at improving the present and future quality of human life.'

 Revised National Policy on Education, 1992-Para (8.16): 'Population Education must be viewed as an important part of the nation's strategy to contain the growth of population starting at the primary and secondary school levels with inculcation of consciousness about the looming crisis due to expansion of population. Educational programmes should actively motivate and inform youth and adults about family planning arid responsible parenthood.'

8.6 OBJECTIVES, IMPORTANCE AND CHARACTERISTICS

The following are the objectives of population education:
To develop an understanding of:
 Relevant demographic concepts and processes
 The rapid growth of population and its causes
 The influence of population trends on various aspects of human life
 The Close interaction of population growth and developmental programmes for raising the standard of living
 The evil effects of overpopulation on environment
 The scientific and medical advancement resulting in the imbalance between death and birth rate
 The biological factors and the phenomenon of reproduction responsible for continuation of species.
 To develop and attitude of responsibility and mutual help cooperation in all aspects of personal and family living.
 To provide students with a basic demographic vocabulary so that they are able to read and interpret demographic material with some understanding. To develop an appreciation of:
 The small family norms as proper and desirable
 The relation between population size and the quality of life
 The fact that the family size is a matter of deliberate choice and human regulation
 The relationship between the preservation of the health of the mother, the welfare of the children and the small size of the family
 The fact that the actions of each individual affects others and also that the personal and national decisions concerning family size and population have long ranging consequences for the whole world.
 To develop an awareness of population of population policies and programmes of the country.

Importance

 Today's children are tomorrow's citizens.
 They must know the population and its consequences.
 Education is an effective way to sensitize people of the need for accepting 'small family norm.'
 Students play a major role in spreading this message Hence it is necessary to include population education in the school curriculum.

Need of Population Eduction
Optimumuse ofnatural resources

Maintaining and Improving Health
Checking Under Nourishment
Developing Appropriate Reproductive Behaviour
Prepariing YoungPeople forBetter FamilyLife
Establishing Equalityof Sexes
GIvinbg Impetusto Family Planning
Controlling population explosion Ensuring qualityof life

Characteristics of Population Education

 It is a new branch of study in the field of education
 Studies the impact of the increase in population of different age groups
 Studying the impact helps the students to investigate and explore the interaction between population and environment. Of the total population on the economic development of a country.
 Helps the students to be aware of the process and consequences of the population growth on the quality of our lives
 Enables the students to describe the causes and consequences of population growth at the local, national and global levels
 Provides solutions to population problems and makes human life happy
Problems of Population
Let's have a look at some of the problems of population.
1. Food problem Due to tremendous increase in population, the food problem continues in-spite of the spectacular achievement of the green revolution. The quality of food consumed is also below nutritional level. The scientific and technological advancements are being neutralized by the increase in numbers.
2. Economical problem There has been remarkable progress in both the industrial and agricultural sectors during the last five decades. But there is no increase in the per-capita consumptions. The increased facilities in various sectors of life do not keep pace with the needs of the growing population.
3. Younger generation problem The growing population is usually a problem relating to younger population. Almost half of the population of our country is less than sixteen years of age. This young population requires a proportionately larger outlay for supporting the social services needed for it, like education, health, transport housing and other facilities. It is impossible for a developing country for providing all these amenities in requisite adequacy.
4. Environmental problem Increasing number cannot subsist only on agriculture. They migrate to urban areas, big cities and industrial centres. Such a situation is creating problems like water and air pollution, transportation, shortage of housing, overcrowding schools, growth of slums. Growing population defies all efforts in planning for development and the country remains as backward as ever.
5. Educational problem There are also some educational problems and difficulties due to over population. These are:
(a) Too many pupils at all levels
(b) Poor building, furniture and equipment
(c) Wastage and stagnation
(d) Poor - staff

(e) Unemployment
(f) Poor quality of education
(g) Student indiscipline and other allied problems at various stages of education

Hence, population education needs to be given top priority. The situation is so grim that something needs to be done quick at grassroots level. The younger generation needs to be informed. They need to be properly educated for leading a planned adult life. Role of Education in Population Control Education has a great motivational force to perform for controlling over population. Suitable educational measures need to be adopted to promote desirable changes:

1. Community forums and voluntary organizations should discuss the drawback of large families and the merits of small families.
2. Children in the elementary stage should also be taught through their courses of study, the merits of small family and demerits of large family and should develop favourable attitude and appreciation for having a small family when they become adults.
3. Boy and girls at the secondary stage should be given the knowledge in a scientific way about the reproductive biology system and the sex-hygiene.
4. Parent-teacher associations can also take the responsibility of educating the families.
5. Schools should assume the responsibility of educating the community and the families and should collaborate with other agencies for the education of the masses for having small families

Interdisciplinary or integrated or infused approach

Let's see how population education is treated under the inter-disciplinary approach:

- A distinctive population education unit, course or module is created by selecting, presenting and dwelling upon the relevant components of various disciplines.
- A series of related topics of population education are interwoven into an instructional scheme.
- The approach is likely to provide a comprehensive view of various dimensions of population education and hence would be more effective.
- Population education should be treated as a integrated subject with other subjects.

SEX EDUCATION

Traditionally, adolescents in many cultures were not given any information on sexual matters, with the discussion of these issues being considered taboo. Such instruction, as was given, was traditionally left to a child's parents, and often this was put off until just before a child's marriage. The progressive education movement of the late 19th century, however, led to the introduction of "social hygiene" in North American school curricula and the advent of school-based sex education.[2] Despite early inroads of school-based sex education, most of the information on sexual matters in the mid-20th century was obtained informally from friends and the media, and much of this information was deficient or of dubious value, especially during the period following puberty, when

curiosity about sexual matters was the most acute. This deficiency was heightened by the increasing incidence of teenage pregnancies, particularly in Western countries after the 1960s. As part of each country's efforts to reduce such pregnancies, programs of sex education were introduced, initially over strong opposition from parent and religious groups.

Sex education is the instruction of issues relating to human sexuality, including emotional relations and responsibilities, human sexual anatomy, sexual activity, sexual reproduction, age of consent, reproductive health, reproductive rights, safe sex, birth control and sexual abstinence. Sex education that covers all of these aspects is known as comprehensive sex education.[1] Common avenues for sex education are parents or caregivers, formal school programs, and public health campaigns.

Definitions

John J. Burt defined sex education as the study of the characteristics of beings: a male and female.[9] Such characteristics make up the person's sexuality. Sexuality is an important aspect of the life of a human being and almost all people, including children, want to know about it. Sex education includes all the educational measures which - regardless of the particular method used - may center on sex. He further said that sex education stands for protection, presentation extension, improvement and development of the family based on accepted ethical ideas.

Leepson sees sex education as instruction in various physiological, psychological and sociological aspects of sexual response and reproduction.[10] Kearney (2008) also defined sex education as "involving a comprehensive course of action by the school, calculated to bring about the socially desirable attitudes, practices and personal conduct on the part of children and adults, that will best protect the individual as a human and the family as a social institution." Thus, sex education may also be described as "sexuality education", which means that it encompasses education about all aspects of sexuality, including information about family planning, reproduction (fertilization, conception and development of the embryo and fetus, through to childbirth), plus information about all aspects of one's sexuality including: body image, sexual orientation, sexual pleasure, values, decision making, communication, dating, relationships, sexually transmitted infections (STIs) and how to avoid them, and birth control methods.[10] Various aspects of sex education are considered appropriate in school depending on the age of the students or what the children can comprehend at a particular point in time. Rubin and Kindendall expressed that sex education is not merely the topics of reproduction and teaching how babies are conceived and born. Instead, it has a far richer scope and goal of helping children incorporate sex more meaningfully into their present and future life and to provide them with some basic understanding of virtually every aspect of sex by the time they reach full maturity.[

The Objectives and Importance of Sex Education

• The objectives of sex education are to help children understand the body structures of men and women and acquire the knowledge about birth
• Teach children to establish and accept the role and responsibility of their own gender by acquiring the knowledge of sex. Understanding the differences and similarities between two genders in terms of body and mind will set up a foundation for the future development in their acquaintance with friends and lovers and their interpersonal relationship
• Sex education is a kind of holistic education. It teaches an individual about self-acceptance and the attitude and skills of interpersonal relationship. It also helps an individual to cultivate a sense of responsibility towards others as well as oneself When should sex education be given? By whom? Nowadays, with rapid growth of information, sex information is everywhere. Children are curious about sex. Therefore, parents need to instill correct concepts of sex to their children as early as possible before they are misled by indecent magazines and irresponsible media. When children grow up, they need to learn and adapt to the physiological and psychological changes in different stages of development. The learning objectives of sex education vary with the age of children and the environment. They need appropriate and continuous counselling and guidance. Parents are the core people who accompany their children as they grow up, so, parents are also the most appropriate person to give their children sex education. The earlier sex education is given at home, the earlier the children are able to establish correct concepts on sex, and the easier the parents can handle the situation.

A lot of people consider mother as the most ideal person to give sex education; but in fact, father's participation is equally important. A son can learn from his father the suitable role as a man, while a daughter can learn from her father the responsibilities of a man in his family and the society. She will also understand the expectations others have upon a woman. Children will greatly benefit from all these, and when they grow up, they will know how to interact with other people.

Preconditions for Sex Education

1. Understand sexual education
• Understand the psychological development and perplexity of your growing child
2. Build a good parent-child relationship and establish a foundation for future interaction
• Keep a warm and harmonious family atmosphere
• Let children feel that they are being loved and cared for • Cultivate children's sentiments by encouraging them to take part in cultural activities such as music or drawing. Parents should participate in such activities as well to improve the relationship between parent and child
• Provide opportunities for children to cultivate different interests and let them participate in group activities

Education Skills and Methods

1. Choose the right time, ask questions and provide answers • Give sex education in appropriate occasions Seize opportunities such as relevant TV programs to induce children to think and ask questions voluntarily

• Avoid discussing sex with children in the presence of other people, in case they feel embarrassed or disrespected

2. Establish their confidence and holistic development • Emphasize on a holistic development. Teach your children to have correct and enlightened views of sex, so that they are able to accept themselves and affirm their self-worth, which will benefit them for the rest of their life

3. Use proper materials and keep up with time

• Understand the development of your children's intelligence. As they grow up, you should provide more specific answers even for the same question to satisfy their quest for knowledge.• When you answer your children's questions, you should first clarify how much they know about this topic. Then give a brief answer using the words they understand, the ways of speaking and the tones that they are accustomed to

4. Understand your children and understand yourself

• Establish a mutual trust with your children • Participate in your children's activities. Share their conversations and laughter in order to understand their thinking and their culture. This may help improve the communication with your children on the subjects relating to sex • Share your children's worries about sex and discuss with them the possible solutions

5. Equality and mutual respect

• Answer your children's questions with an understanding attitude. Give clear and definite replies • Avoid using a lecturing tone or command your children to obey your instructions. This may make them feel repugnant

• Avoid using words that are offensive or may hinder communication, such as "How can you be so stupid?"

6. Be kind and patient

• Be patient and attentive. Listen to your children carefully. Talk to them with mild and natural tone • If your children have biased views of sex or when their opinions are different from yours, don't get angry. You should try to understand your children, listen to them, and calmly explain to them your opinions

7. Be honest and objective

Reply your children's questions on sex with correct answers. Do not make up answers to attempt to satisfy their curiosity • Tell your children honestly if you do not know the answer, and find out the answer together with your children from books or other sources • Avoid casting your own view on the other gender upon your children

8. Do as you preach

• You should pay attention to your own behaviour and attitude about sex issues in your everyday life to avoid double standards

• Action speaks louder than words; your behaviour must be consistent with your words

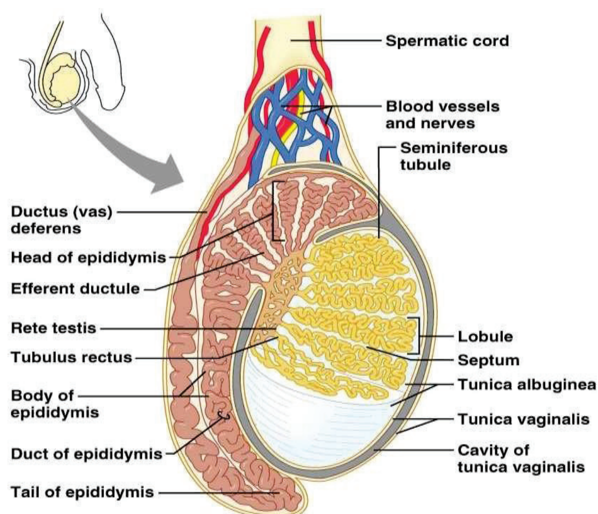
9. Make use of education materials

• Parents can make use of sex education materials such as books or videotapes to facilitate discussion and explanation on sex issues

10. Broaden their social circle and seek support
• Encourage your children to take part in extra-curricular activities such as joining the Boy Scouts, Girl Guides or volunteer projects so as to enlarge their social circle. • Keep in contact with school and understand the content of the sex education provided so as to cooperate with the school. • Participate in activities organized for parents in the subjects of children's growth and sex education so as to acquire the relevant knowledge and skills

8.7 ANATOMY PHYSIOLOGY AND REPRODUCTIVE SYSTEM OF MALE

Testis : Sex organ that produces sperm in a process called **spermatogenesis** , and male sex hormones (**testosterone**).Developed in a male fetus near the kidneys , and descend to the scrotum about 2 months beforebirth. Each testis is enclosed by a layer of fibrous connective tissuecalled **tunica alumina** . Each testis contains about 250 functional units called lobules ; each lobule contains about 4 **seminiferous tubules** wherespermatogenesis occurs . All somniferous tubules in a testis converge and form a channelcalled **rate testis** .



Function of the reproductive system

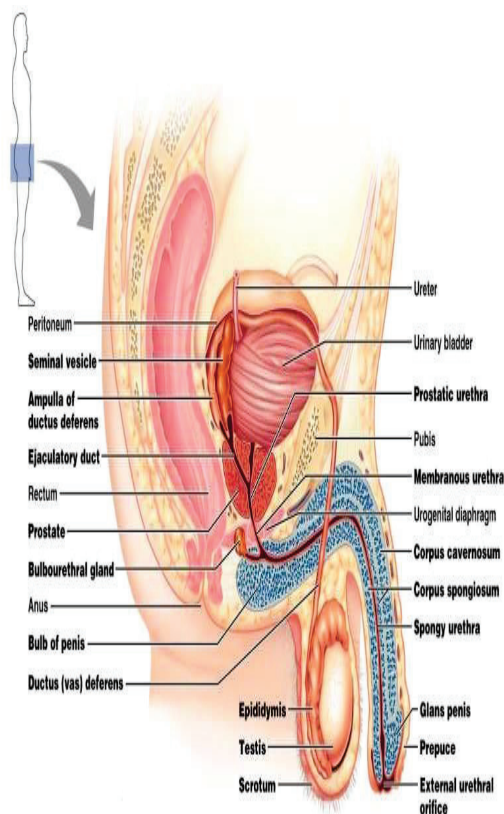
Sexual reproduction requires a male and a female of the same species to copulate and combine their genes in order toproduce a new individual who is genetically different from his parents.sexual reproduction relies on **meiosis** to shuffle the genes ,so that new combinations of genes occur in each generation , allowing some of the offspring of survive in the constantly – changing environment. he male reproductive system produces , sustains , anddelivers sperm cells (spermatozoa) to the female reproductive tract. The female reproductive system produces , sustains , and allows egg cells (oocytes) to be fertilized by sperm . it also supports the development of an offspring (gestation) and gives birth to a new individual (parturition).

Scrotum: A pouch – like cutaneous extension thatcontains the two testes . Located outside of pelvic cavity to prevent overheating of testes nternal temperature of scrotum is always about 3 °F below body temperature].

- **Epididymis:** An expanded tubule from the rate testis where sperm is stored (for about 3 days) , matured and become fully functional.Contains cilia on its columnar epithelium that help move sperm toward vas deferens during ejaculation..
- **Vas deferens:** A tubule (about 10 inches long) thatconnects epididymis to the urethra for transporting sperm during ejaculation. Contains smooth muscle that undergoes rapid peristalsis during ejaculation.

Accessory sex glands

- **Seminal vesicles:** secrete an alkaline solution that makes up 60% of the semen volume ; this seminal fluid contains fructose (nutrient for the sperm) and prostaglandins (substances that stimulate uterine contraction during sexualexcitation).
- **Prostate gland:** secretes a slightly acidic , milky white fluid that makes up about 30% of semen volume ; this fluid helps neutralize the pH of semen and vaginal secretion.
- **Bulb urethral gland:** secretes a clear lubricating fluid that aids in sexualintercourse.



Reproductive organs of the male

Population policy, population education and sex education; physiology of reproduction: reproductive anatomy and physiology, menarche and menopause, fecundity, fertility, treatment of infertility;adoption.

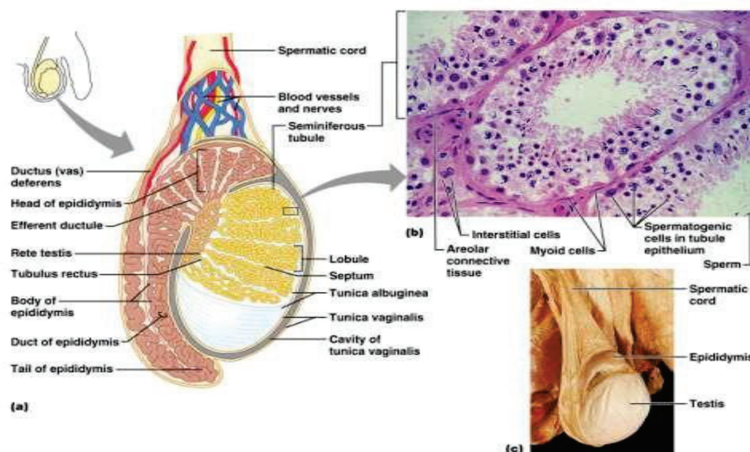
NOTES

Urethra: A tubule located inside the penis for urine excretionand semen ejaculation .Contains smooth muscle that performs rapid peristalsis during ejaculation.

Penis: A copulatory organ that is responsible for delivering the sperm to the female reproductive tract. Contains 2 erectile tissues called **corpus cavernosa** and **corpus spongiosum** , where the latter one enlarges and forms the glans penis due to increased blood flow during sexual excitation.

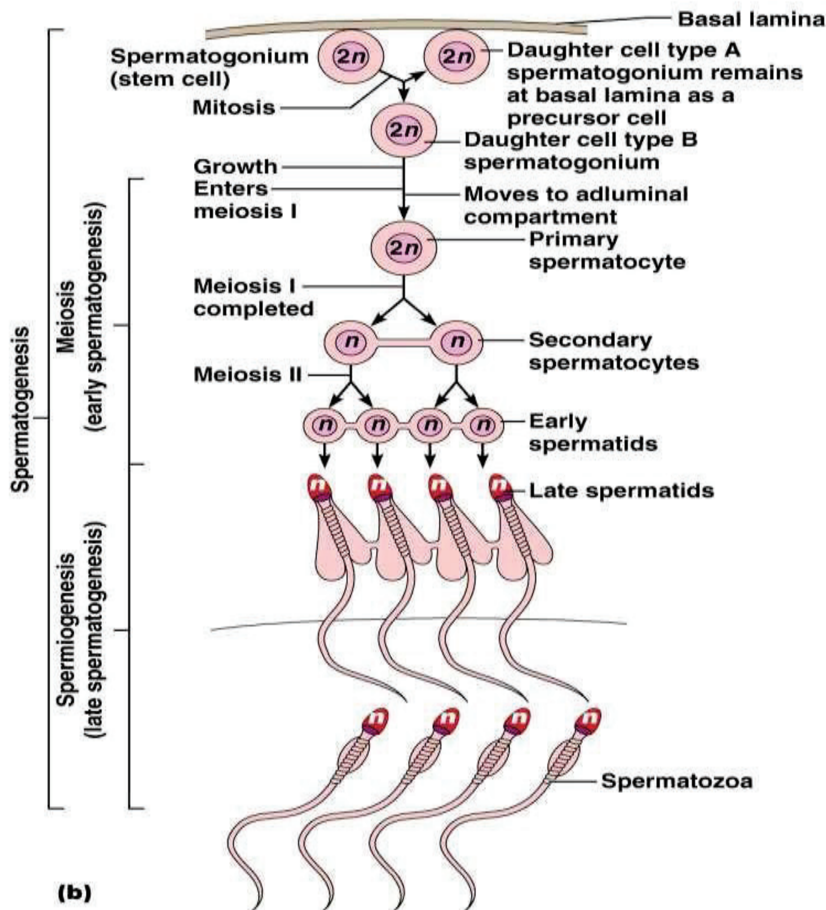
During sexual excitement , parasympathetic nerves cause vasodilatation in the penis , allowing erectile tissues toswell and erect the penis.During ejaculation , sympathetic nerves cause vas deferens , urethra and erectile tissues to contract, forcefully expelling semen (a mixture of sex gland fluids and about 300 million sperm) outward.

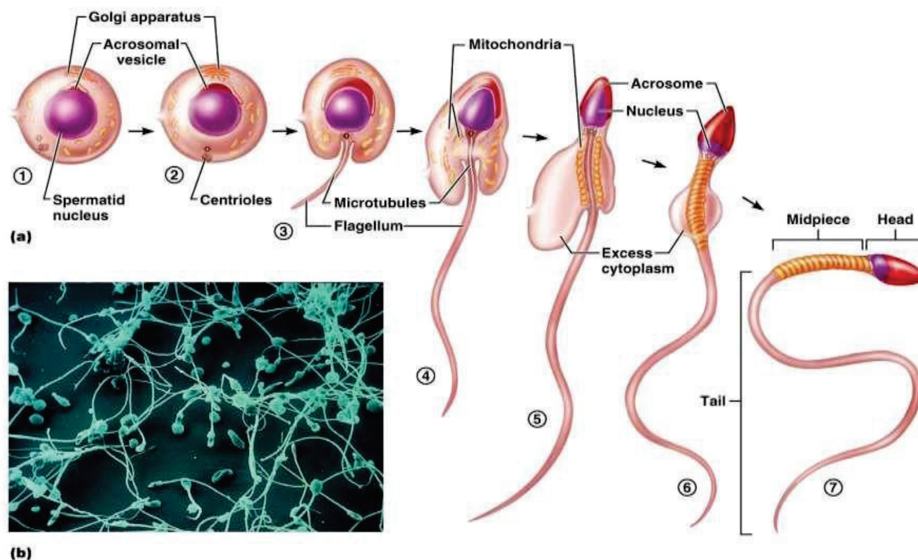
Seminiferous TubulesAbout 1,000 **seminiferous tubules** in each testis conduct**spermatogenesis**.Between the tubules are specialized glandular cells called **interstitial cells** (or leydig's cells) which produce**testosterone.**Inside the tubules are specialized cells called **sertoli's cells** which support and nourish the sperm.



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Spermatogonia (containing46 chromosomes)
decades].Primary spermatocytes undergo "crossing - over" to shuffle their genes ,and undergo **meiosis I** which results in **secondary sperm-atocytes** (each containing 46 unique chromosomes).Secondary spermatocytes undergo **meiosis II** whichproduces **spermatids** (with 23 unique chromosomes) .Spermatids now transform themselves into **spermatozoa** (also containing 23unique chromosomes) in a final event called **spermatogenesis.**





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Each spermatozoa consists of a head (which contains the 23 hromosomes), a mid piece (which stores mitochondria forenergy production) , and tail.The head is enclosed by a structure called

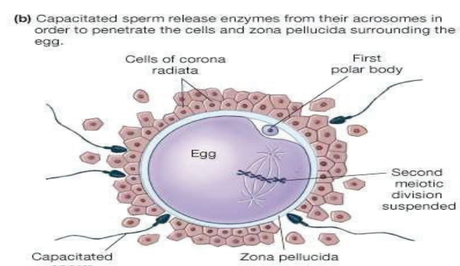
acrosomewhich stores lays enzymes called **acrosin** for breaking down the coatings surrounding the egg.

8.8 JOURNEY OF A SPERM

At the end of spermatogenesis , spermatozoa are propelled by cilia in the inner walls of rete testis toward the epididymes (the tails of these sperm are not movable at this point). inside the epididymis, certain enzymatic reactions occur that allow spermatozoa to be fully matured and functional , but not yet havethe ability to fertilize the egg.if no ejaculation occurs during the 3- day storage time in the epididymis , phagocytes will destroy millions of older sperm in storage. during ejaculation , rapid peristalsis in the epididymis and vasdeferens propel the millions of sperm , passing the accessory sex glands ,and be expelled through the urethra into the vagina of the female. after several minutes in the vagina (about 25% of sperm is destroyed by the acidic secretion of vagina), the tail becomes functional , propelling the sperm through the cervix and intothe uterus. half of the sperm will swim into the left uterine tube , while the other half swim towards the right uterine tube . only one of the uterine tubes carries the eggcell. sperm continue swimming toward the deeper end of uterine tube, against the expulsion force of the cilia lining the inner wall of uterine tubeduring this movement in the uterine tube, the acrosome isslowly activated to prepare for the release of acrostinenzyme.by the time sperm has arrived at the ampoule region of uterine tube , only about 50 sperm are viable enough to try to fertilize the egg. And usually only 1 sperm will penetrate through the coatings surrounding theegg.each ejaculation emits about 2-6 ml of semen which contains about 300-400 million sperm . it takes the sperm about 2-12 hours toreach the fertilization site in the uterine tube , but many sperm can survive some where in the female reproductive tract for up to 2-3 days.one of the sperm will eventually penetrate through zone pellucida ,and allow its cell membrane to fuse with the cell membrane of ovum .This causes a rapid electrical depolarization at the cell membrane of ovum, preventing other sperm entering the ovum (a phenomenon called poly sperm)

(a)

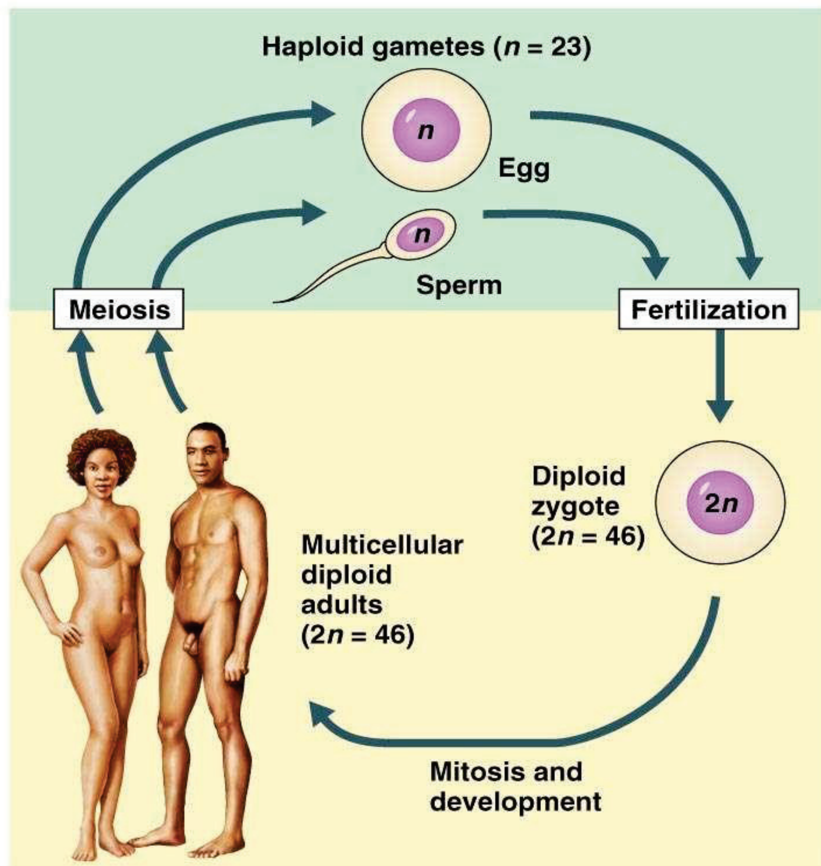




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8.9 The Human life Cycle



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Mechanism of penile erection

Male sex Hormone Control

1. Sexual stimulation

2. Parasympathetic neurons release nitric oxide, causing dilation of small arterioles of penis (meanwhile veins are compressed reducing blood flow away from penis).3. Blood accumulates within the vascular spaces in erectile tissue of penis.4. Penis swells & become erect.

Mechanism of emission & Ejaculation

♂1. Intense sexual stimulation.

2. Sympathetic impulses contract smooth musclescausing:

Peristaltic contractions in testicular ducts, Epididymis,vas deference and ejaculatory ducts.Rhythmic contraction in bulbourethral, prostate, and seminal vesicles.Rhythmic contractions in erectile columns of penis.3. Emission-semen moves intourethra4. Ejaculation- semen is forcefully expelled from urethra.

Hormonal control of ♂ reproductive function

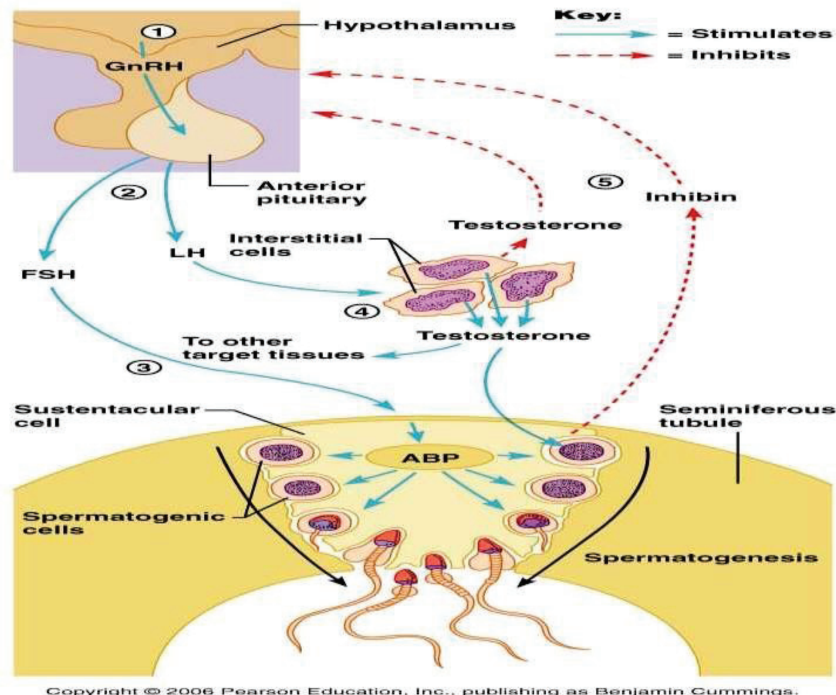
1. Hypothalamic and pituitaryhormones:

The male body remains reproductively immature until the hypothalamus releases GnRH (Ganadotropin – releasing hormone), which stimulates the anterior pituitary gland to release gonadotropins (FSH, LH).

FSH- stimulates spermatogenesis.

LH (ICSH) – stimulates the interstitial cells toproduce male sex hormone (testosteronne). Inhibin prevents over secretion of FSH . (Inhibin – from substentacular cells of seminiferoustubules).

The brain – testicular axis



Male sex hormones

- ***2. Male sex hormones are called androgens.***

Testosterone is converted into dihydrotestestrone in someorgans (stimulates cells of these organs). Androgens that fail to become fixed in tissues are metabolizedin the liver and excreted. Androgens production increases rapidly atpuberty 3. Action of testosterone: stimulates the development of the male reproductive organsand causes the testes to descend. it is responsible for the development and maintenance of male secondary sex characteristics (facial hair , deeper voice ,muscular development).

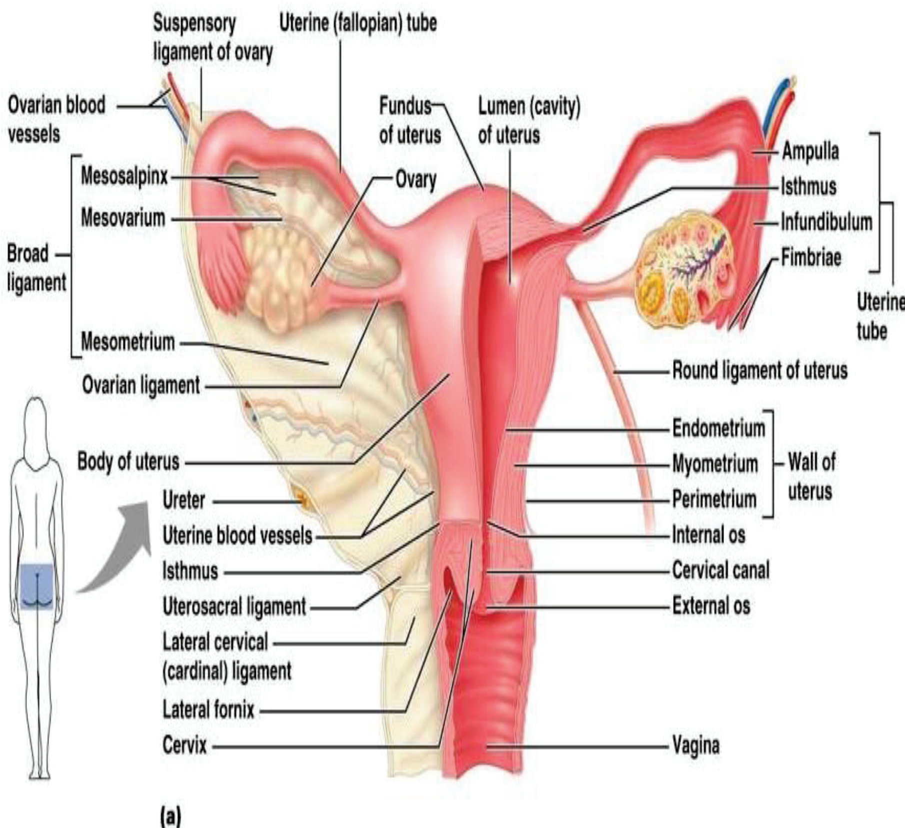
Regulation of male sex hormone

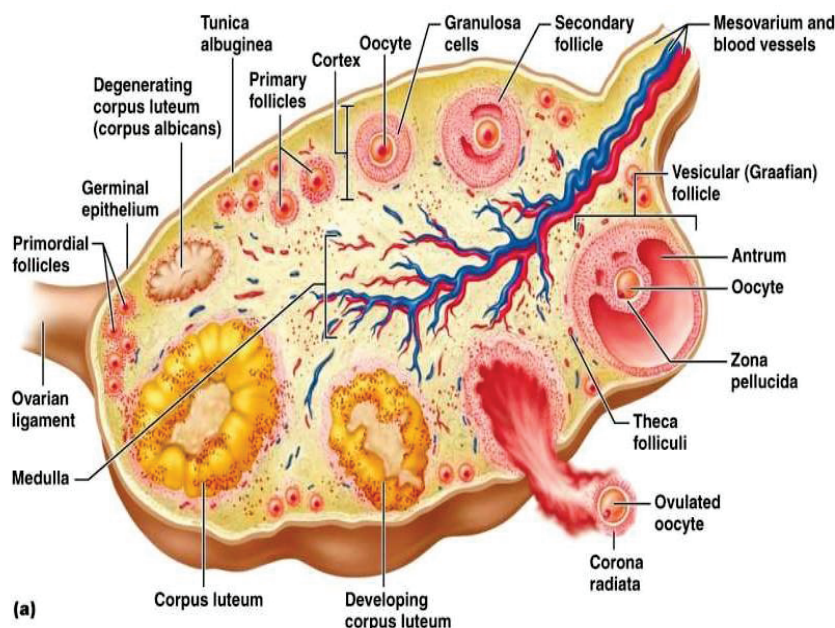
Negative feedback mechanism regulatestestosterone conc. As the of testosterone rises , the hypothalamus is inhibited , and the Ant. pituitary secretion of gonadotropins is reduced. As the conc. of testosterone falls , the hypothalamus signals the ant. Pituitary to secrete gonadotropins. b. The conc. of testosterone remains relatively stable from day today.

8.10 FEMALE REPRODUCTIVE SYSTEM

ovary :primary sex organ that produces egg cells in a processcalled **oogenesis** , and also produces female sex hormones such as **estrogens** and**progesterone**.developed near the kidneys during fetal development ,and toward the end of pregnancy descend into the pelvic cavity. consists of **ovarian cortex** where the **ovarian cycle** occurs , and **ovarian medulla** where scar tissues and connective tissue are located. enclosed by a layer of cubical cells called**germinal epithelium.** bound to the uterine tubes and uterus by **ovarian ligaments**.

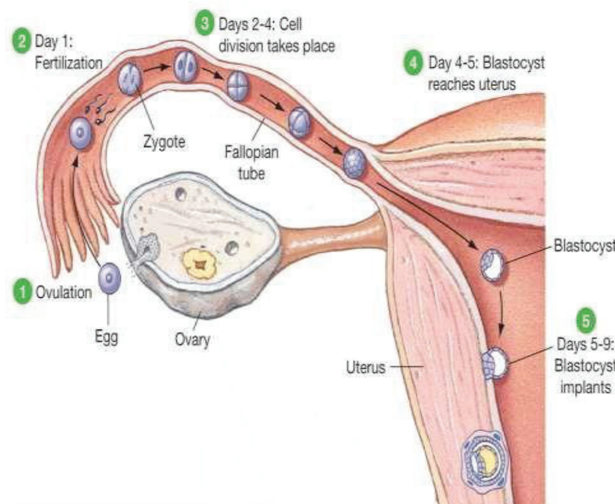
Internal reproductive organs of a female





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Structure of an ovary

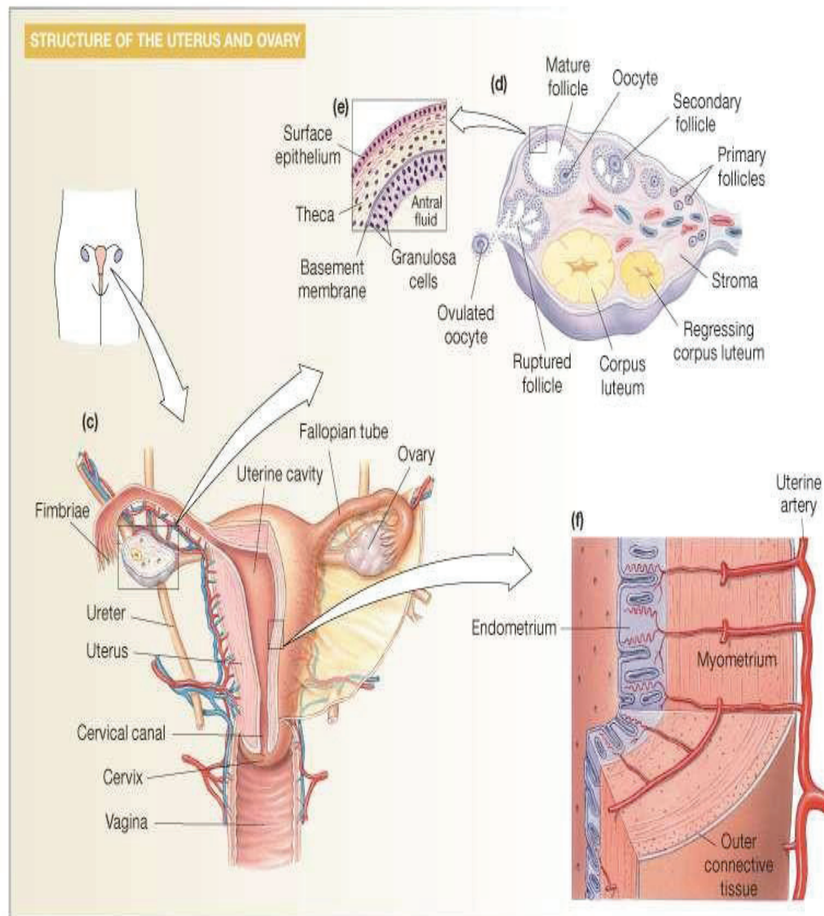


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Uterus

- a pear – shaped cavity formed by the union of the two uterine tubes.
- composed of 3 layers of tissue – **perimetrium** (fibrous connective tissue)**, myometrium** (smooth muscle), and **endometrium**(epithelial and connective tissues).
- after fertilization , embryo adheres to the endometrial layer forfurther development – an event called **implantation.**
- to prepare for implantation and development , endometrium is stimulated by estrogens to thicken and becomes vascularzed –a process called the **menstrual cycle**. myometrium ,under the

stimulation of oxytocin, contracts duringlabor to expel the fetus into the vagina. the base of uterus is closed by a narrow passageway called **cervix** to prevent the entry of foreginsubstances

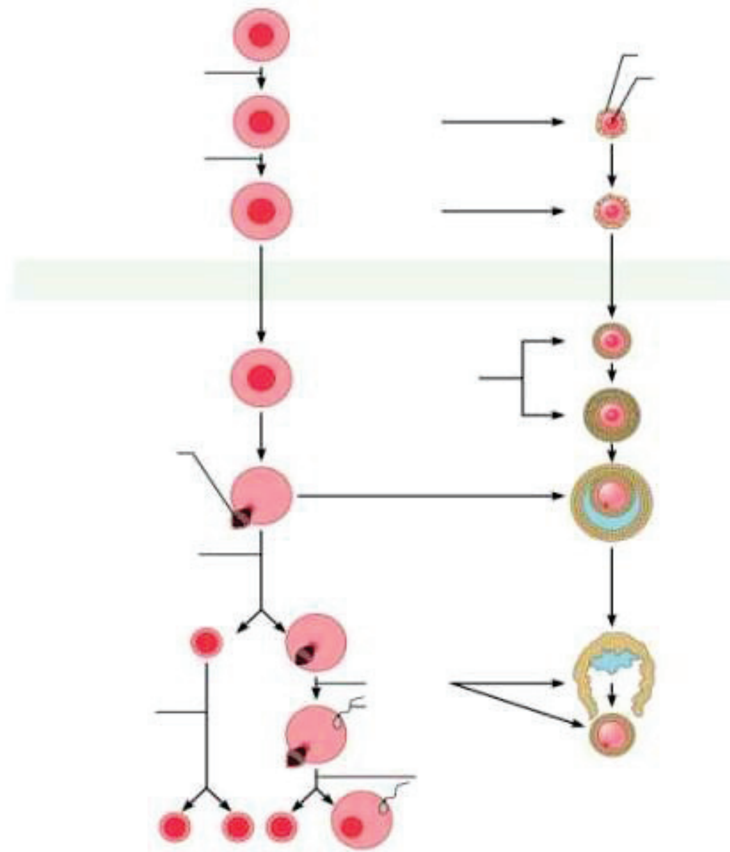


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Oogenesis

- In the ovarian cortex ,a process called **oogenesis** (formation of egg) occurs to develop a mature ovum . Before birth , several millioncells called **primordial oocytes** exist in the ovaries – most of them spontaneously degenerate.
- At birth , only 1 million primordial oocytes are left ; and bypuberty (age 10-11) ,only 400,000 remain in the ovaries.

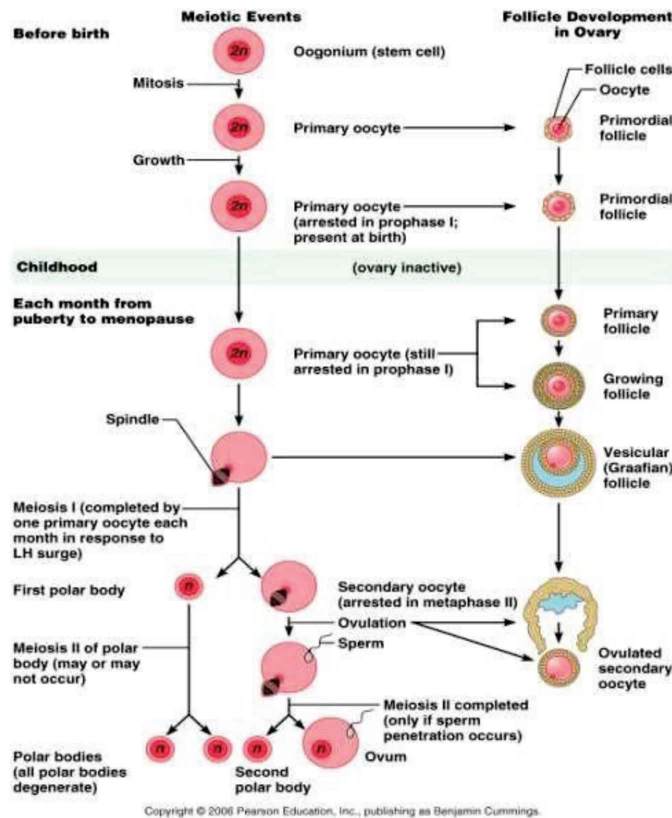
- From puberty to menopause , some of these primordial oocytes (containing 46 chromosomes) undergo DNA replication and become



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  primary oocytes (with 46 pairs of chromosomes).
- Primary oocytes will then undergo "crossing - over" to shuffle their genes, and **meiosis I** will occur to divide the cells into **secondary oocytes** (containing 46 unique chromosomes) and the **first polar bodies** (also containing 46 unique chromosomes ; but will be degenerated).
- oogenesis now is arrested where the ovary discharges a mature secondary oocyte into theuterine tube (in a process called **ovulation**).
- **Meiosis II** is reactivated when this secondary oocyte is fertilized by a sperm (if no fertilization occurs , secondary oocyte is discarded along with the menstrual flow), instantly dividing the 46 chromosomes into 23 (inside the **second polar body**) and another 23 will be united with the 23 chromosomes released from thesperm.

- **Mechanism of erection, lubrication, and orgasm in human female**



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1. sexual stimulation.

2. Arteries in the erectilc tissue dilate, vagina expands andelongates

3. Engorged and swollen vagina increases friction from movement of penis.

- 4. parasympathetic nerves impulses from sacral portion of thespinal nerve is enhanced.

- 5. sexual stimulation intensifies.

- 6. vestibule glands secrete mucus to lubricate.

- 7. orgasm: rhythmic contraction of muscles of the perineum,muscular walls of uterus, and uterine tube.

Hormonal control of ♀ reproductive function

- Hormones from the hypothalamus , Ant. Pituitary gland and ovaries, play important roles in the control of sex cell maturation , and development and maintenance of female secondary sex characteristics.

- Female sex hormones:

A female body remains reproductively immature until about10 years of age when gonadotropin secretion increases.The most important female

sex hormones are estrogenand progesterone.Estrogen is responsible for the development and maintenanceof most female secondary sex characteristics.Progesterone causes change in the uterusHormonal control of ♀ secondary sex characteristic

The hypothalamus releases GnRH , which stimulates the Ant. Pituitarygland.The Ant. pituitary gland secretes FSH and LH.FSH stimulates the maturation of a follicle.Granulose cells of the follicle produce and secrete estrogen; LH stimulated certain cells to secrete estrogen precursor molecules.Estrogen is responsible for the development and maintenanceof most female secondary sex characteristics.Concentrtion of Androgens affect other secondary sex characteristics, including skeletal growth and growth of hair.Progesterone, secreted by the ovaries , affect cyclical hangesin the uterus and mammary glands.

Ovarian cycle

- A series of event in the ovarian cortex in order to produce amature ovum and sex hormones.

- Lasts for about 28 days , where from day 1 to 13 the mature ovum is developed and estrogens are released ,on day 14 ovulation occurs to discharge the ovum , and from day 15 to 28 scar tissues are formed and progesterone is released.

- On day 1 ,hypothalamus secretes Latinizing hormone eleasing hormone (LHRH) to the anterior pituitary gland , which in turn secretes follicle – stimulating hormone (FSH) to the ovaries.

- Upon receiving FSH , about 20-25 primary follicles develop into secondary follicles . [primary oocytes located inside primaryfollicles undergo meiosis I and become secondary oocoytes , contained in secondary follicles].

- Follicular cells in secondary follicles begin to secrete estrogens(for communicating with hypothalamus and anterior pituitary and for developing the endometrium).

- With continuous stimulation of FSH and some Latinizing hormone (LH) ,secondary follicles continue to grow larger and developmultiple layers of follicular cells (while the secondary oocytes within are unchanged).

- By day 13 , only 1 secondary follicle will fully mature and becomethe graafian follicle (or mature follicle) which secretes a large amount of estrogens to the hypothalamus – anterior pituitary system forsignaling ovulation (using a positive feedbackmechanism).

- On day 14 , large amounts of LH ("LH surge") will be secreted by anterior pituitary , inducing ovulation where the graafian follicle ruptures and releases the secondary oocyte into uterine tube.



Regulation of ovarian function

- From days 15 to 25 , graafian follicle degenerates and becomes**corpus hemorrhagicum** ("a bleeding body") then **corpus luteum** ("a yellow body"; containing **lutein cells** that secrete **progesterone** and some estrogens to continuum stimulating the development ofendometrium)**.**
- By day 26 , if no fertilization occurs to the secondary oocyte, resulting in a lack of **human chorionic Gonadotropin** hormone (HCG) from the embryo , corpus luteum degenerates into **corpus albicans** . [if fertilization did occur , HCG will continuously simulate corpus luteum for 2-3 months , allowing high levels of estrogens and progesterone to maintain pregnancy in the first trimester].
- When corpus luteum degenerates , the declining levels of estrogensand progesterone will signal the hypothalamus – anterior pituitary system to initiate another ovariancycle.

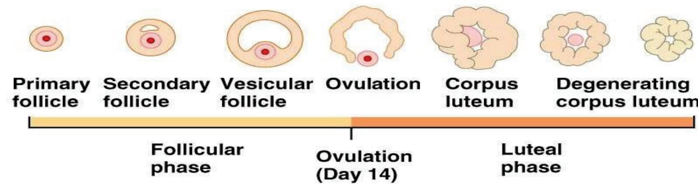


- A series of events that occurs in the uterus in order to prepare he endometrial layer for implantation and fetal development.

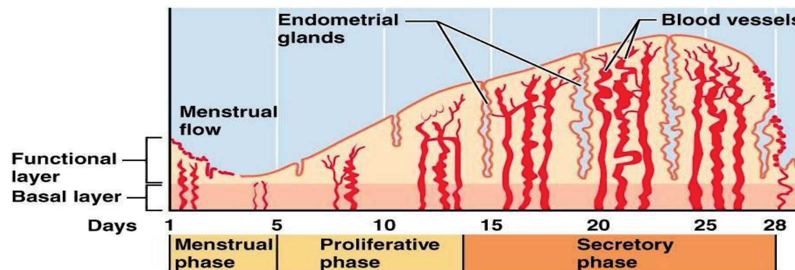
- Occurs simultaneously with the ovarian cycle , but is about 1 week behind ; and also lasts about 28 days.
- From days 1 to 6 , the **menstruation phase** occurs where the top portion of a thickened endometrial called **stratum functionalis** is shed off from the previous cycle . tissue repair occurs to prepare for a new menstrual cycle . Along with the stratum functionalist tissue **,**mucus , blood , and the secondary oocytes are discarded as"menses".
- From days 7 to 13 , increasing levels of estrogens from secondary and mature follicles stimulate the endometrial to thicken and visualize –in a stage called the **preovulatoryphase**.

From days 15 to 28 , continuous secretion of estrogens and progesterone from corpus luteum causes the endometrium to continue thickening and vascularizing – the **postovulatoryphase.**Toward the end of this phase , if no fertilization occurs ,resulting in a lack of **HCG** stimulation to corpus luteum , the declining levels of estrogens and progesterone will cause the endometrium to degenerate – ultimately shedding off the stratum functionalis layer.If fertilization did occur , high levels of estrogens and progesterone from the corpus luteum (in the first trimester) and from the placenta (in the second and third trimesters) will sustain the thickness and vascularization of endometrium until the endof pregnancy.
Major events in menstrual cycle - Summary

- 1. The Ant. pituitary gland secretes FSH and LH.
- 2. FSH stimulates maturation of a follicle .Granulose cells of the follicle produce and secrete estrogen . Estrogen maintains 2ndry sex traits & causes the uterine lining to thicken.
- 3. The Ant. pituitary gland releases a surge of LH, which stimulates ovulation . Follicular and thecal cells become corpus luteum cells which secrete **estrogen** and **progesterone**.
    - a. Estrogen continues to stimulate uterine wall development.
    - b. Progesterone stimulates the uterine lining to become more glandular and vascular.
    - c. Estrogen and progesterone inhibit secretion of FSH and LH from the Ant. pituitary gland.



(c) Ovarian cycle

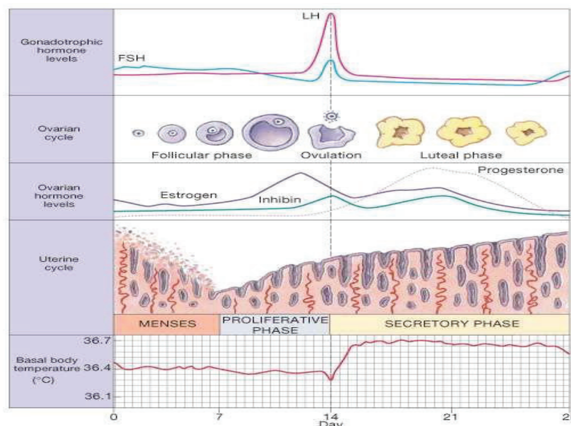


(d) Uterine cycle

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The Menstrual Cycle

4. If the egg is not fertilized , the corpus luteum degenerates



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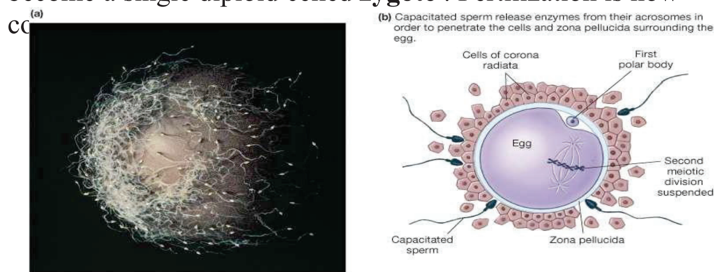
andno longer secretes estrogen and progesterone (24th day of thecycle).

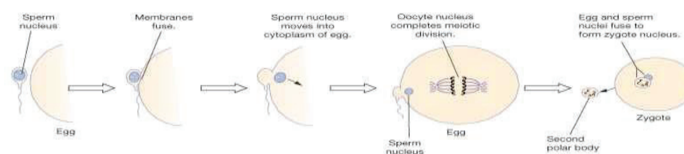
5.As the conc. of luteal hormones decline , blood vessels in theuterine lining constrict.

□ 6. The uterine lining disintegrates and sloughs off, producing a menstrual flow (28th day of thecycle).
□ 7.The Ant. pituitary gland , no longer inhibited, again secretes FSHand LH.
□ 9. The menstrual cycle repeats.

Fertilization

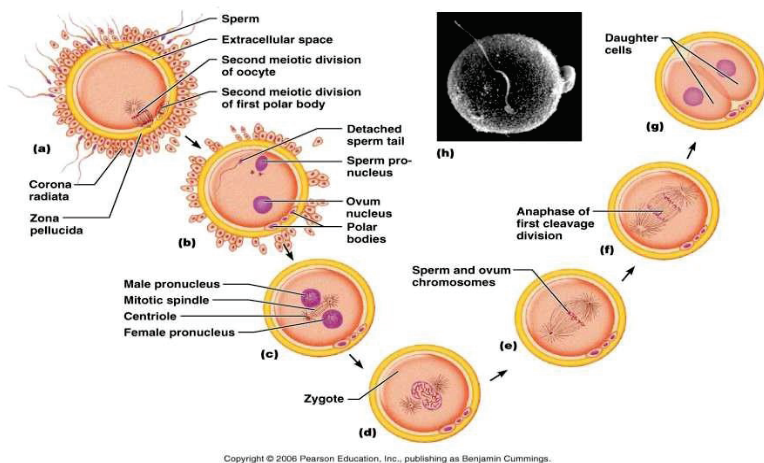
- Within an hour after sexual intercourse , sperm would have traveled from the vagina , through the cervix , into the uterus and uterine tube.
- during this journey , the **acrosome** on the head of spermatozoa would be worn off , releasing **acrosin** enzyme by the time sperm areattached to the outer coatings of the ovum.
- About 50 spermatozoa are attached to the outermost coating called **corona radiate** .using hydrolysis reaction aided by acrosin , some of these sperm reach the inner coating called **zone pellucida**.
- One of the sperm will eventually penetrate through zone pellucida,and allow its cell membrane to fuse with the cell membrane of ovum . This causes a rapid electrical depolarization at the cell membrane of ovum , preventing other sperm entering theovum
- **Now meiosis II** is reactivated in the cytoplasm of ovum , dividing the 46 chromosomes in the nucleus into 23 chromosomes for fertilization (uniting with another 23 chromosomes from the sperm) , and 23 chromosomes to be eliminated along with the second polar body.
- The head of the penetrated sperm is now detached from its mid piece and tail . It will then rupture , releasing 23 chromosomes in the formof long strands of DNA molecules.
- The chromosomes from the sperm and ovum now unite to form a complete set of genetic makeup for the offspring – 2 haploid cells (sperm and ovum) are now joined to become a single diploid celled **zygote** . Fertilization is now co





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Fertilization



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Pregnancy

- 1. A zygote is formed about 12-24 hours after ovulation.
- 2. This single cell , still the same size as the original ovum ,continues to travel through the uterine tube toward the uterus by the action of cilia along the inner lining of uterine tube.
- 3. About an hour after fertilization is complete, mitotic cell division called **cleavage** occurs , dividing the zygote into a cluster ofsmaller cells.
- 4. By the time cleavage has produced 16 identical cells , it is calleda **morula**(which occurs about 2-3 days after fertilization).

- 5. Cleavage continues along the journey through the uterine tube , by the time this cluster of cells has arrived at the uterus (abut 5-6 days after fertilization) , it is called a **blastocyst** which contains hundredsof small cells called **blastomeres** surrounding a hollow cavity called **blastocoel.**

  6. The blastocyst releases digestive enzymes and embedds itself onto the thickened and vascularized **endometrium** layer – a process called **implantation** which occurs about 7 days after fertilization . The blastocyst is now called an **embryo**, which continues to develop for the next 2 months until a **fetus** is formed.
- 7. Soon after implantation , layers of membrane begin to formoutside the embryo–

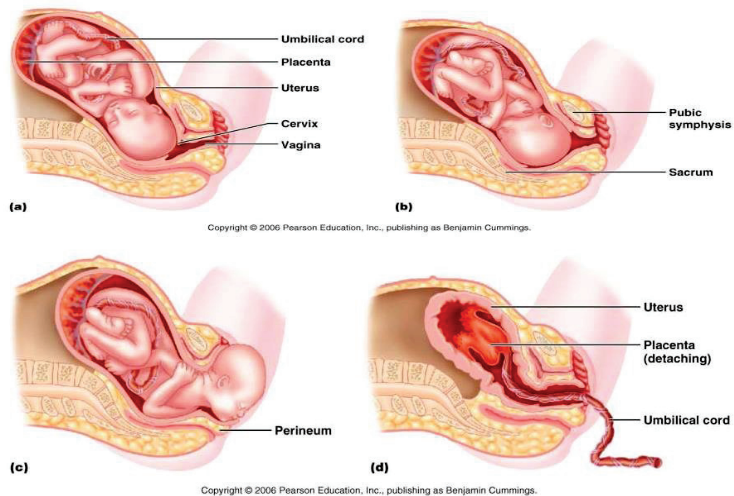
- *a. Chorion* ***– the innermost membrane which secretes ahormone called the*** *Human Chorionic Gonadotropin (HCG)* ***which stimulates the corpus luteum in the ovary for the secretion of estrogens and progesterone , until the***

placenta is fully developed and can secrete estrogens and progesterone.

- b. **Amnion** – the middle membrane that secretes amniotic fluid for nourishing theembryo.
- c. **Placenta** – the outermost membrane that protects the embryo and fetus, allows exchange of nutrients and wastes betweenfetal and maternal blood, and secretes estrogens and progesterone to maintain pregnancy.
- 8. In the first 3 months of pregnancy (or "first trimester") **,**HCG level is the highest and it declines in the last two trimesters. This is to ensure that corpus luteum issustainedandnot degenerated into corpus albicans . [HCG is secreted by renal tubules into urine , allowing pregnancy to be tested positive in a typical pregnancy test. the high HCG level may be responsible for "morning sickness " and other discomfort felt by pregnantwomen].9. In the last two trimesters , placental estrogens and progesterone cause the uterus and breasts to enlarge , and during labor, cause the vagina to stretch. The sharp decline of estrogens after birth will signal new ovarian and menstrual cycles to begin. The sudden reduction of progesterone before birth removes the suppression of **oxytocin** (from posterior pituitary gland), resulting in uterine contractions during the birthprocess.
- 10. pregnancy lasts for about 40 weeks (280 days after the last menstruation or 266 days after fertilization) and ends with**partuition.**
- a. During the last 6 weeks of fetal development , the fetus assumesthe

   vertex position where the head faces the cervix .

- b. At the end of pregnancy , the fetus moves downward and its head causes pressure onto the dilating cervix , [the hormone **Relaxin**from the ovaries stimulates the dilation of cervix and pubicsymphysis].
- c. The pressure onto the cervix signals the hypothalamus which in turn stimulates the posterior pituitary gland for the release ofoxytocin.
- d. **Oxytocin** causes the myometrium layer (made of smooth muscle) to contract involuntarily , pushing the fetus downward.
- e. The downward movement of fetus exerts more pressure onto the cervix , a phenomenon called **positive feedback** – until the fetus is expelled from the uterus, through the cervix and vagina , to theoutside.



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Factors contributing to labor process

 1. As the time of birth approaches, secretion of progesteronedeclines, and its inhibiting effect on uterine contractions may lessen.

2. Decreasing progesterone conc. may stimulate synthesisof prostaglandins, which may initiate labor.

3. Stretching uterine tissues stimulates release of oxytocin fromthe post. Pituitary gland.

4.Oxytocin may stimulate uterine contractions and aid labor in itslater stages.

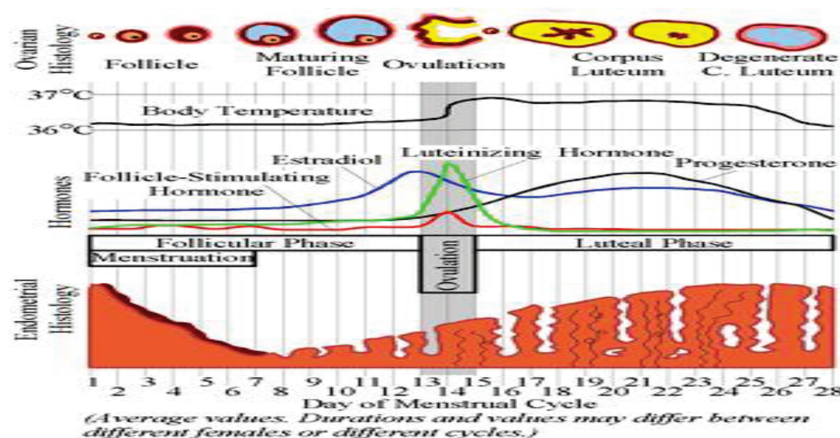
5. As the fetal head stretches the cervix, a positive feedback mechanism results in stronger and stronger uterine contractions and a greater release of oxytocin.
6. positive feedback stimulates abdominal wall muscles tocontract with greater and greater force.
7. The fetus is forced out through the birth canal to theoutside.Hormonal control of mammary glands

 I. **Before pregnancy** (Beginning of puberty):
 Ovarian hormones secreted during menstrual cyclesstimulate alveolar glands and ducts of mammary glands todevelop.
 II. **During pregnancy**:
 Estrogen causes the ductile system to grow andbranch.
 Progesterone stimulates development of alveolarglands
 Placental Lactogen promotes development of the breasts.
 Prolactin (from Ant. pituitary) is secreted throughoutpregnancy , but placental progesterone inhibits milk production (until after birth).

8.11 THE FEMALE REPRODUCTIVE CYCLE

Towards the end of puberty, girls begin to release eggs as part of a monthly period called the female reproductive cycle, or **menstrual cycle** (menstrual referring to "monthly"). Approximately every 28 days, during ovulation, an ovary sends a tiny egg into one of the fallopian tubes. Unless the egg is fertilized by a sperm while in the fallopian in the two to three days following ovulation, the egg dries up and leaves the body about two weeks later through the vagina. This process is called menstruation. Blood and tissues from the inner lining of the uterus (the endometrium) combine to form the menstrual flow, which generally lasts from four to seven days.

The first period is called **menarche**. During menstruation arteries that supply the lining of the uterus constrict and capillaries weaken. Blood spilling from the damaged vessels detaches layers of the lining, not all at once but in random patches. Endometrium mucus and blood descending from the uterus, through the liquid creates the menstruation flow.



Menstrual cycle

The reproductive cycle can be divided into an ovarian cycle and a uterine cycle (compare ovarian histology and uterine histology in the diagram on the right). During the **uterine cycle**, the endometrial lining of the uterus builds up under the influence of increasing levels of estrogen (labeled as estradiol in the image). Follicles develop, and within a few days one matures into an **ovum**, or egg. The ovary then releases this egg, at the time of **ovulation**. After ovulation the uterine lining enters a secretory phase, or the **ovarian cycle**, in preparation for implantation, under the influence of progesterone. Progesterone is produced by the corpus luteum (the follicle after ovulation) and enriches the uterus with a thick lining of blood vessels and capillaries so that it can sustain the growing fetus. If fertilization and implantation occur, the embryo produces Human Chorionic Gonadotropin (HCG), which maintains the corpus luteum and causes it to continue producing progesterone until the placenta can take over production of progesterone. Hence, progesterone is "pro gestational" and maintains the uterine lining during all of pregnancy. If fertilization

and implantation do not occur the corpus luteum degenerates into a corpus albicans, and progesterone levels fall. This fall in progesterone levels cause the endometrium lining to break down and sluff off through the vagina. This is called menstruation, which marks the low point for estrogen activity and is the starting point of a new cycle.

Common usage refers to menstruation and menses as a period. This bleeding serves as a sign that a woman has not become pregnant. However, this cannot be taken as certainty, as sometimes there is some bleeding in early pregnancy. During the reproductive years, failure to menstruate may provide the first indication to a woman that she may have become pregnant.

Menstruation forms a normal part of a natural cyclic process occurring in healthy women between puberty and the end of the reproductive years. The onset of menstruation, known as **menarche**, occurs at an average age of 12, but is normal anywhere between 8 and 16. Factors such as heredity, diet, and overall health can accelerate or delay the onset of menarche.

Signs of ovulation

The female body produces outward signs that can be easily recognized at the time of ovulation. The two main signs are thinning of the cervical mucus and a slight change in body temperature.

Thinning of the Cervical Mucus

After menstruation and right before ovulation, a woman will experience an increase of cervical mucus. At first, it will be thick and yellowish in color and will not be very plentiful. Leading up to ovulation, it will become thinner and clearer. On or around the day of ovulation, the cervical mucus will be very thin, clear and stretchy. It can be compared to the consistency of egg whites. This appearance is known as 'spinnbarkeit'.

Temperature Change

A woman can also tell the time of ovulation by taking her basal body temperature daily. This is a temperature taken with a very sensitive thermometer first thing in the morning before the woman gets out of bed. The temperature is then tracked to show changes. In the uterine cycle, a normal temperature will be around 97.0 – 98.0. The day of ovulation the temperature spikes down, usually into the 96.0 – 97.0 range and then the next morning it will spike up to normal of around 98.6 and stay in that range until menstruation begins.

Both of these methods are used for conception and contraception. They are more efficient in conception due to the fact that sperm can live for two to three days inside of the fallopian tubes. A woman could be off by a couple of days in her calculations and still become pregnant.

Menopause is the physiological cessation of menstrual cycles associated with advancing age. Menopause is sometimes referred to as "the change of life" or climacteric. Menopause occurs as the ovaries stop producing estrogen, causing the reproductive system to gradually shut down. As the

body adapts to the changing levels of natural hormones, vasomotor symptoms such as hot flashes and palpitations, psychological symptoms such as increased depression, anxiety, irritability, mood swings and lack of concentration, and atrophic symptoms such as vaginal dryness and urgency of urination appear. Together with these symptoms, the woman may also have increasingly scanty and erratic menstrual periods.

Technically, menopause refers to the cessation of menses; the gradual process through which this occurs, which typically takes a year but may last as little as six months or more than five years, is known as climacteric. A natural or physiological menopause is that which occurs as a part of a woman's normal aging process. However, menopause can be surgically induced by such procedures as hysterectomy.

The average onset of menopause is 50.5 years, but some women enter menopause at a younger age, especially if they have suffered from cancer or another serious illness and undergone chemotherapy. Premature menopause is defined as menopause occurring before the age of 40, and occurs in 1% of women. Other causes of premature menopause include autoimmune disorders, thyroid disease, and diabetes mellitus.

Premature menopause is diagnosed by measuring the levels of follicle stimulating hormone (FSH) and luteinizing hormone (LH). The levels of these hormones will be higher if menopause has occurred. Rates of premature menopause have been found to be significantly higher in both fraternal and identical twins; approximately 5% of twins reach menopause before the age of 40. The reasons for this are not completely understood. Post-menopausal women are at increased risk of osteoporosis.

Perimenopause refers to the time preceding menopause, during which the production of hormones such as estrogen and progesterone diminish and become more irregular. During this period fertility diminishes. Menopause is arbitrarily defined as a minimum of twelve months without menstruation. Perimenopause can begin as early as age 35, although it usually begins much later. It can last for a few months or for several years. The duration of perimenopause cannot be predicted in advance.

Premenstrual Syndrome (PMS) It is common for women to experience some discomfort in the days leading up to their periods. PMS usually is at its worst the seven days before a period starts and can continue through the end of the period. PMS includes both physical and emotional symptoms: acne, bloating, fatigue, backaches, sore breasts, headaches, constipation, diarrhea, food cravings, depression, irritability, difficulty concentrating or handling stress.

Ovarian and Uterine Cycles in the Non pregnant Woman



An ovary about to release an egg.

Ovarian Cycle	**Events**	**Uterine Cycle**	**Events**
Follicular phase - Days 1-13	FSH secretion begins.	Menstruation - Days 2-5	Endometrium breaks down.
	Follicle maturation occurs.	Proliferative phase - Days 6-13	Endometrium rebuilds.
	Estrogen secretion is prominent.		
Ovulation - Day 14*	LH spike occurs.		
Luteal phase - Days 15-28	LH secretion continues.	Secretory phase - Days 15-28	Endometrial thickens, and glands are secretory.
	Corpus luteum forms.		
	Progesterone secretion is prominent.		

(*)Assuming a 28 day cycle.

There are two phases of the ovarian cycle the follicular phase and the luteal phase. In the follicular phase about 10-25 follicles are taken from preantral or early antrial follicles to develop further. Seven days later the dominant follicle is selected to develop to full maturity. This is the pre-cursor for ovulation. Follicles themselves secrete FSH and estrogen, and these two hormones stimulate follicular growth and development. Ovulation marks the beginning of the luteal phase. This is started by the wall of the Graffian follicle to rupture and cause a flow of antral fluid that will carry the oocyte to the ovary's surface. The ruptured follicle is then turned into a gland (corpus luteum). Which secretes estrogens and progesterone. This is all triggered by and abrupt change in plasma LH levels. After ovulation the released oocyte enters the uterine tube, where it will be either fertilized or discarded.

The uterine cycle operates in sync with the ovarian cycle and is divided into three phases. The first phase in the menstrual phase. It is named the menstrual phase because in corresponds with the shedding the uterine lining or more commonly called menstruation. The corpus luteum degenerates causing plasma estrogen and progesterone levels to decrease and in turn causes menstruation. Blood vessels in the outer most layer of the endometrium constrict and decrease blood flow to the tissues killing these tissues. After the tissues die they start to separate from the underlying endometrail tissues. Eventually the dead tissue is shed. This shedding of the tissues ruptures blood vessels and causes bleeding. Now we have the proliferative phase. During this phase the uterus renews itself and prepares for pregnancy. The endomitrial tissue that is left after menstruation begins to grow. The endometrial glands grow and enlarge causing more blood vessels. The cervical canal has glands that secrete a thin mucous that helps deposited sperm. Estrogen promotes uterine changes in this phase. The last phase is the secretory phase. This is where the endometrium is transformed to make it the best environment for implantation and subsequent housing and nourishment of the developing embryo. By doing this the endometrium will do things like have an enriched blood supply, begin to secrete fluids rich in glycogen, and even form a plug at the end of the cervical canal so that microorganisms can not enter. These changes in the uterus are caused by progesterone, due to the corpus luteum. At the end of the secretory phase the corpus luteum degenerates, and progesterone levels fall. This will trigger menstruation.

Fertility, fecundity and fecundability

In demography, *fertility* indicates the product or output of reproduction, rather than the ability to have children. The physiological ability to have children—that is manifest roughly in the period between menarche and menopause in women—is termed *fecundity*. Demographers define a third, further aspect of reproduction—*fecundability*—which is the probability of becoming pregnant, or the likelihood of exposure to the possibility, that depends on the pattern of sexual and pregnancy preventive behaviours.

Infertility

Similarly, demographers use the term *infertility* to refer to the absence of liveborn children, or the presence of few children, rather than the term *sterility* that refers to the possible physiological status underlying childlessness.

Conception and pregnancy that is followed by fetal loss—whether due to spontaneous or induced abortion, or at term (stillbirths)—is not considered to contribute to fertility by demographers, as its occurrence is not discernible demographically. Accordingly, fertility refers to *live births* only, and *infertility* refers only to shortfalls in liveborn children, whether or not pregnancy(ies) occurred.

The proximate determinants of fertility

Demographically observed fertility or infertility is the result of a well-defined number of both biological and behavioural factors, which serve to mediate the influence of culture, society, economic conditions, living standards, and other similar *background* determinants on individual reproductive behaviour. Together, these biological and behavioural factors are called the *proximate determinants of fertility* (see Bongaarts and Potter (1), and Frank and Bongaarts (5)), and they are the factors through which, and *only* through which, the social and economic environment can influence individual procreation. Together, these factors constrain fertility, and explain why women do not have the maximum possible number of children, which would be about 35 if they reproduced continuously from, say, the age of 18, to about the age of 45, having a birth every nine months.

Biological constraints on fertility

The biological constraints on the number of liveborn children include not only the time actually lost during pregnancy(ies), but also the time lost after delivery before fecundity resumes (*postpartum infecundability*), the waiting time to conception, the time lost because of naturally occurring intra-uterine mortality, and time lost because of sterility arising naturally with age or induced by a pathological condition, which varies the most widely of all biological determinants because of the variability of associated sexual behaviours. On average, assuming the risks spread out over all women, in addition to the 9 months of pregnancy, postpartum infecundability adds 1.5 months, the waiting time 7.5 months, intra-uterine mortality 2 months, and sterility a further, variable period to the interval between two births. Together, the biological constraints lower the maximum feasible fertility from 35 births to about 15, which is called *total fecundity*, or the limit in physiological capability of childbearing.

Behavioural constraints on fertility

The behavioural constraints on the number of children borne by a women include the extent of exposure to the possibility of conception, i.e. the time spent married and/or having sexual relations, as well as the extent of practice of breastfeeding, which prolongs postpartum infecundability, of a contraceptive method, whether traditional or modern, and of induced abortion. Together, behavioural constraints lower fertility to the levels of

total fertility we currently observe—about two children per woman in industrialized countries, or that we have heard of—for example, a family size range of five to seven or eight children in Africa. The most important single determinant of the difference overall has come to be the practice of contraception: consequently, in contemporary societies, fertility has become largely determined by *behaviour*, and by *choice*, through *voluntary* regulation. Biological factors nevertheless still play a considerable role in the variability of individual fertility that will be illustrated below.

This brief note will first review the distribution of fertility worldwide, then review the worldwide distribution and etiology of infertility, and finally illustrate the contribution of both biology and behaviour to demographically observed fertility, by focussing on the role of women's age.

The demography of fertility

The level of fertility in the world varies broadly by country and culture, social and economic conditions, as well as by individual characteristics such as age. Generally, more industrialized and economically developed societies have lower fertility than agricultural, less developed societies. Also, within countries, generally, more educated groups with higher incomes have lower fertility than less educated groups with lower incomes. Historically, as groups within countries have improved their living standards, and nations have become more economically developed, health conditions have improved, morbidity and mortality have declined, and fertility has declined due to the adoption of fertility-constraining behaviours, such as the limitation of sexual relations or marriage, practice of contraception, and resort to induced abortion.

Age, fertility, fecundity, and fecundability

The relationship of age to fertility, fecundity and fecundability illustrates the complex interplay of behavioural and biological determinants of fertility, as observed at the demographic level.

Whereas the onset of fecundity is determined by first ovulation and menarche, the beginning of fertility is determined by social and cultural factors: early fertility will either be desired in order for a society to maximize fertility, which may grant social and economic advantages, or not desired in those societies that encourage later childbearing for demographic, economic and/or social reasons. Consequently, actual onset of fecundity is delimited by biological events—the true capacity for childbearing—and behavioural constraints. Behavioural constraints on early childbearing, which are generally increasing in all human societies, influence the materialization of fecundity by lowering *fecundability*, or the probability of a conception: social norms dictate behavioural constraints that prevent individual women from realizing their biological capacity to conceive.

Similarly, an interplay of biological and social factors serve to determine when fertility ceases. In this case, however, the actual timing, or onset, of

natural sterility, is less evident, and it is likely that behavioural factors obscure the biological determination of childbearing cessation even more than its initiation.

Evidence of fecundity cessation

Until recently, there were three sources of information on the end of childbearing: data on menopausal status by age, data on age of women at last birth in societies that do not limit fertility (i.e. that have a pattern of *natural fertility*), and data on pregnancy rates from artificial insemination of women of different ages.

Menopausal status data show that in most populations a proportion of women cease menstruating by the late thirties that increases to about 20 percent in the mid-forties to reach 100 percent by the mid-fifties. This observation informs us little on the end of fecundity, however, because menopause is not well-circumscribed enough to serve as a marker for the end of menstrual cycles, and presumed ovulation.

Data on age of women at last birth in natural fertility societies suggest, furthermore, that even if the timing of menopause were better determined, it might not be an accurate indicator of the end of fecundity, because whereas the average age at menopause is about 48-50 years, women appear to have their last birth on average many years earlier, at about 39-41 years. Other sources serve to support the finding that infecundity occurs on average about eight years before manifest menopause (Gray (6)).

According to data on artificial insemination, infecundity onset would occur even earlier, as noticeable declines in pregnancy rates are observed by the mid-thirties. Several biases, however, serve to reduce the usefulness of data from artificial insemination studies to time the natural decline of fecundity with age (see Frank et al. (4)).

8.12 INFERTILITY AND ADOPTION

Meaning of Infertility

Infertility means inability, incapability or incapacity to produce a child. It may be either on the side of the male or female or both. It also means impotency which in India is lawfully recognised as a valid ground for getting marriage annulled by a decree of nullity1; if the marriage has not been consumated owing to the impotence of the respondent. A marriage is said to be consumated only by sexual intercourse. "A person whose mental or physical condition makes consumation of the marriage a practical impossible is impotent".However, the infertility in which we arc concerned is different than the impotency. It is the infertility which refers to the spouses who are capable of performing sexual intercourse but are incapable to produce a child. Therefore, the meaning of infertility in this context can be defined as the lack ofgenetic productivity in a spouse or spouses to create generation of their own children even after performing successful sexual intercourse repeatedly for a long time of their cohabitation with each other. In short, it means genetic inability in a spouse or spouses.

Clinical definitions

Infertility is “a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.”“Infertility is the inability of a sexually active, non-contracepting couple to achieve pregnancy in one year. The male partner can be evaluated for infertility or subfertility using a variety of clinical interventions, and also from a laboratory evaluation of semen.” (Semen manual, 5th Edition[3]).

Demographic definitions of infertility

An inability of those of reproductive age (15-49 years) to become or remain pregnant within five years of exposure to pregnancy. (DHS[2]) An inability to become pregnant with a live birth, within five years of exposure based upon a consistent union status, lack of contraceptive use, non-lactating and maintaining a desire for a child. (Trends in prevalence[4]). Epidemiological definition of infertility (for monitoring and surveillance) Women of reproductive age (15–49 years) at risk of becoming pregnant (not pregnant, sexually active, not using contraception and not lactating) who report trying unsuccessfully for a pregnancy for two years or more.

(Reproductive Health Indicators)

Infertility as a disability

Disability: Infertility generates disability (an impairment of function), and thus access to health care falls under the Convention on the Rights of Persons with Disability. An estimated 34 million women, predominantly from developing countries, have infertility which resulted from maternal sepsis and unsafe abortion (long term maternal morbidity resulting in a disability). Infertility in women was ranked the 5th highest serious global disability[5&6] (among populations under the age of 60).

Primary infertility

When a woman is unable to ever bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth she would be classified as having primary infertility. Thus women whose pregnancy spontaneously miscarries, or whose pregnancy results in a still born child, without ever having had a live birth would present with primarily infertility.(Trends in prevalence[4]).

Secondary infertility

When a woman is unable to bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth following either a previous pregnancy or a previous ability to carry a pregnancy to a live birth, she would be classified as having secondary infertility. Thus those who repeatedly spontaneously miscarry or whose pregnancy results in a stillbirth, or following a previous pregnancy or a previous ability to do so, are then not unable to carry a pregnancy to a live birth would present with secondarily infertile. (Trends in

prevalence[4]).An expert opinion says, "Infertility is defined as 1 year of unprotected coitus without conception" "Both the terms infertility and sterility m ean inability to conceive after one year of sexual life without contraception when the couple get worried for a baby".

2.3 Causes and Factors of infertility both female and male"The incidence of infertility is 10% in hospital statistics. In general population it is 2.5% in India".10"At least 10% of all married couples have an infertility problem".

(a) Common Causes or Factors of Infertility in Females and MalesThe following are the common causes or factors in both the females as well

as the males, which affect their genetic capability and make the fertile person an infertile onc:Poor general health and nutrition;

- Emotional, psychological and depression;
- Unfavourable socio-economic conditions;
- Postponement of marriage;
- Mental disorder, nervous breakdown;
- Smoking;
- Changing roles and aspirations for women;
- Increasing use of contraception;
- Deferment of conception, as well as increase in Abortion;
- Increase in sexually transmitted diseases;
- Age factor;

These factors can summarily be discussed as follows

It is a well known fact that good general health and nutrition keep body and mind fit and avoid visits to doctors. But general health is also associated with fertility. Though bad health is not an absolute barrier to conception, it directly affect the ovulation or spermatogenesis. Malnutrition and poor economic circumstances may reduce the general level of fertility. When their weight falls down to 35 Kg or less, the women fail to ovulate. Anxiety and tension are common in modern life and seem to be responsible for infertility in some individuals although no specific effect on the reproductive system can be demonstrated.13Emotional and psychological behaviour coupled with unfavourable socioeconomic conditions also contribute to ill-health, ultimately affecting the infertility. When a person acts emotionally and psychologically, the organic function cannot function normally and in some cases leads to depression which affects the fertility.

Types of fertility treatments.

Thanks to technology, there are lots of ways to help people with all kinds of fertility issues. The options that are best for you depend on your

personal situation and what's causing your infertility. Sometimes only one person needs treatment, other times both partners will use a combination of treatments together.

Fertility treatments often include medications that help with hormones and ovulation, sometimes combined with minor surgical procedures. Assisted Reproductive Technology (ART) describes several kinds of procedures that can help you have a baby. ART includes procedures that make it easier for sperm to fertilize an egg, and help the egg implant in your uterine lining.

Two of the most common fertility treatments are:

Intrauterine insemination (IUI)

Healthy sperm is collected and inserted directly into your uterus when you're ovulating.

in vitro fertilization (IVF)Eggs are taken from your ovaries and fertilized by sperm in a lab, where they develop into embryos. Then a doctor puts the embryos into your uterus. Cryopreservation (aka freezing your eggs, sperm, or embryos), egg or embryo donation, and gestational carriers (aka surrogacy) are also forms of ART.

Donor sperm, donor eggs, and surrogates are often used by same-sex couples or single people who want to have a baby. You can also use sperm and/or eggs from a donor if a problem with your own sperm cells or eggs is causing infertility issues. Talking with a doctor who specializes in pregnancy and/or infertility can help you figure out which treatments are best for you. Your family doctor or gynecologist can refer you to a fertility specialist.

In vitro fertilization (IVF) helps with fertilization, embryo development, and implantation, so you can get pregnant.

How does IVF work?

IVF stands for in vitro fertilization. It's one of the more widely known types of assisted reproductive technology (ART). IVF works by using a combination of medicines and surgical procedures to help sperm fertilize an egg, and help the fertilized egg implant in your uterus. First, you take medication that makes several of your eggs mature and ready for fertilization. Then the doctor takes the eggs out of your body and mixes them with sperm in a lab, to help the sperm fertilize the eggs. Then they put 1 or more fertilized eggs (embryos) directly into your uterus. Pregnancy happens if any of the embryos implant in the lining of your uterus.

IVF has many steps, and it takes several months to complete the whole process. It sometimes works on the first try, but many people need more than 1 round of IVF to get pregnant. IVF definitely increases your chances of pregnancy if you're having fertility problems, but there's no guarantee — everyone's body is different and IVF won't work for everyone.

What's the IVF process?

The first step in IVF is taking fertility medications for several months to help your ovaries produce several eggs that are mature and ready for fertilization. This is called ovulation induction. You may get regular ultrasounds or blood tests to measure your hormone levels and keep track of your egg production. Once your ovaries have produced enough mature eggs, your doctor removes the eggs from your body (this is called egg retrieval). Egg retrieval is a minor surgical procedure that's done at your doctor's office or at a fertility clinic. You'll get medicine to help you be relaxed and comfortable during the procedure. Using an ultrasound to see inside your body, the doctor puts a thin, hollow tube through your vagina and into the ovary and follicles that hold your eggs. The needle is connected to a suction device that gently pulls the eggs out of each follicle.

In a lab, your eggs are mixed with sperm cells from your partner or a donor — this is called insemination. The eggs and sperm are stored together in a special container, and fertilization happens. For sperm that have lower motility (don't swim as well), they may be injected directly into the eggs to promote fertilization. As the cells in the fertilized eggs divide and become embryos, people who work at the lab monitor the progress. About 3-5 days after the egg retrieval, 1 or more embryos are put into your uterus (this is called embryo transfer). The doctor slides a thin tube through your cervix into your uterus, and inserts the embryo directly into your uterus through the tube.

Pregnancy happens if any of the embryos attach to the lining of your uterus. Embryo transfer is done at your doctor's office or at a fertility clinic, and it's usually not painful. Plan on resting for the rest of the day after your embryo transfer. You can go back to your normal activities the next day. You may also take pills or get daily shots of a hormone called progesterone for the first 8-10 weeks after the embryo transfer. The hormones make it easier for the embryo to survive in your uterus.

What are the side effects of IVF?

Like all medications and medical procedures, IVF has some risks and possible side effects. These include: bloating cramping,breast tenderness,mood swings,headaches,bruising from shots, allergic reaction to medicines, bleeding, infection

IUI work?

IUI stands for in intrauterine insemination. It's also sometimes called donor insemination, alternative insemination, or artificial insemination. IUI works by putting sperm cells directly into your uterus around the time you're ovulating, helping the sperm get closer to your egg. This cuts down on the time and distance sperm has to travel, making it easier to fertilize your egg. Before having the insemination procedure, you may take fertility medicines that stimulate ovulation. Semen is collected from your partner or a donor. It goes through a process called "sperm washing" that collects a concentrated amount of healthy sperm from the semen.

Then your doctor puts the sperm right into your uterus. Pregnancy happens if sperm fertilizes your egg, and the fertilized egg implants in the lining of your uterus. IUI is a simple and low-tech procedure, and it can be less expensive than other types of fertility treatments. It increases your chances of pregnancy, but everyone's body is different, so there's no guarantee that IUI will work.

What can I expect during IUI?

Before IUI, you may take fertility medicines that help make your eggs mature and ready to be fertilized. Your doctor will do the insemination procedure during ovulation (when your ovaries release an egg). Sometimes you'll be given hormones that trigger ovulation. They'll figure out exactly when you're ovulating and ready for the procedure to maximize your chances of getting pregnant.

Your partner or donor collects a semen sample at home or in the doctor's office. The sperm are prepared for insemination through a process called "sperm washing" that pulls out a concentrated amount of healthy sperm. Sperm washing also helps get rid of chemicals in the semen that can cause reactions in your uterus and make it harder to get pregnant. If you're using donor sperm from a sperm bank, the sperm bank generally sends the doctor's office sperm that's already "washed" and ready for IUI.

During the IUI procedure, the doctor slides a thin, flexible tube through your cervix into your uterus. They use a small syringe to insert the sperm through the tube directly into your uterus. Pregnancy happens if sperm fertilizes an egg, and the fertilized egg implants in the lining of your uterus. The insemination procedure is done at your doctor's office or at a fertility clinic, and it only takes about 5-10 minutes. It's pretty quick, and you don't need anesthesia. IUI is usually not painful, but some people have mild cramping.

Child adoption

Adoption means the process through which the adopted child becomes the lawful child of his adoptive parents with all the rights, privileges and responsibilities that are attached to a biological child.

Fundamental principles governing adoption

The following fundamental principles shall govern adoptions of children from India, namely:-

the child's best interests shall be of paramount consideration, while processing any adoption placement preference shall be given to place the child in adoption with Indian citizens and with due regard to the principle of placement of the child in his own socio-cultural environment, as far as possible all adoptions shall be registered on Child Adoption Resource Information and Guidance System and the confidentiality of the same shall be maintained by the Authority.

Stakeholders in adoption process

Central Adoption Resource Authority (CARA) - CARA ensures smooth functioning of the adoption process from time to time, issues Adoption Guidelines laying down procedures and processes to be followed by different stakeholders of the adoption programme.

State Adoption Resource Agency (SARA) - State Adoption Resource Agency acts as a nodal body within the State to promote and monitor adoption and non-institutional care in coordination with Central Adoption Resource Authority.

Specialised Adoption Agency (SAA) - Specialised Adoption Agency (SAA) is recognized by the State Government under sub-section 4 of section 41 of the Act for the purpose of placing children in adoption.

Authorised Foreign Adoption Agency (AFAA)- Authorised Foreign Adoption Agency is recognised as a foreign social or child welfare agency that is authorised by Central Adoption Resource Authority on the recommendation of the concerned Central Authority or Government Department of that country for coordinating all matters relating to adoption of an Indian child by a citizen of that country.

District Child Protection Unit (DCPU) - District Child Protection Unit (DCPU) means a unit set up by the State Government at district level under Section 61A of the Act. It identifies orphan, abandoned and surrendered children in the district and gets them declared legally free for adoption by Child Welfare Committee.

Who is eligible to adopt a child?

The prospective adoptive parents should be physically, mentally and emotionally stable; financially capable; motivated to adopt a child; and should not have any life threatening medical condition;

Any prospective adoptive parent, irrespective of his marital status and whether or not he has his own biological son or daughter, can adopt a child;

Single female is eligible to adopt a child of any gender:

Single male person shall not be eligible to adopt a girl child;

In case of a couple, the consent of both spouses shall be required;

No child shall be given in adoption to a couple unless they have at least two years of stable marital relationship;

The age of prospective adoptive parents as on the date of registration shall be counted for deciding the eligibility and the eligibility of prospective adoptive parents to apply for children of different age groups shall be as under

Age of the child	Maximum composite age of prospective adoptive parents	Maximum age of single prospective adoptive parent	

Upto 4 years	90 years	45 years
Above 4 upto 8 years	100 years	50 years
Above 8 upto 18 years	110 years	55 years

The minimum age difference between the child and either of the prospective adoptive parents should not be less than twenty five years; The age for eligibility will be as on the date of registration of the prospective adoptive parents;

Couples with more than four children shall not be considered for adoption;

How to adopt a child?

It is now mandatory to register online on CARINGS to adopt a child. If you are not familiar / unable to register online, you can approach the District Child Protection Officer (DCPO) of your district.

Adoption procedure

In-country

Parents register online on CARINGS (www.cara.nic.in)

Select preferred Adoption Agency for HSR (Home Study Report) and State

User ID and Password generated

Upload documents within 30 days of registration

Registration number generated

Specialised Adoption Agency (SAA) conducts Home Study Report (HSR) of the PAPs and uploads it on CARINGS within 30 days from the date of submission of required documents on CARINGS Suitability of Prospective Adoptive Parent (PAP)s is determined (if not not found suitable, PAPs i nformed with reasons for rejection)

PAPs reserve one child, as per their preference from upto 6 children

PAPs visit the adoption agency within 15 days from the date of reservation and finalise If the child is not finalized within stipulated time, the PAPs come down in the seniority listOn acceptance of the child by the PAPs, SAA completes the referral and and adoption process (on CARINGS)

PAPs take the child in pre - adoption foster care and SAA files petition in the court

Adoption Court order issued

Post-adoption follow-up report is conducted for a period of two years.

Parents In-country - Instructions for Online Parent Registration for Adoption

This registration is meant for Indian citizens residing in India

Please give your correct residential address and telephone no. with area code

You or your spouse must have a Permanent Account Number (PAN) card and you have to upload PAN card in portable document format (.pdf) – size should not exceed 512 KB

You have to upload your (single parent) or your family photograph (couple) in .jpg format (3.5 x 4.5 cm). – Size should not exceed 1 MB

You must have an email account and mobile number After successful registration, you will receive an online acknowledgement letter which will contain your registration and credential details

In case you misplace your online acknowledgement letter, then it can be regenerated using Forgot Password link available in Track Status page

Please upload the following documents:

Photograph of person/s adopting a child (Post Card Size)

Birth Certificate

Proof of Residence (Adhaar Card/Voter Card/ Driving License/ Passport/ Current Electricity Bill/ Telephone Bill

Proof of Income of last year (Salary Slip/ Income Certificate issued by Govt. Department/ Income Tax Return)

In case you are married, please upload Marriage Certificate,In case you are divorcee, please upload copy of Divorce Decree,In case of death of your spouse, please upload Death Certificate of spouse ,Certificate from a medical practitioner certifying that the PAPs do not suffer from any chronic, contagious or fatal disease and they are fit to adopt.

In case of incomplete/wrong information, your application is liable to be treated as invalid

After registration, you should contact the adoption agency

All original documents will have to be produced for verification

Your eligibility for adoption will be decided by the adoption agency.

From In-country to Inter-country

Children would move automatically from in - country adoption to inter - country adoption by CARINGS following time schedule as below :

after 60 days, if the child is below 5 years of age; after 30 days, if the child is above 5 years of age or is a sibling; after 15 days, if the child has any intellectual or physical disability .

Do's and Don'ts

Key Points to Remember for Prospective Adoptive Parents (PAPs)

Do's	Don'ts
Only adopt from Specialised Adoption Agencies (SAAs) recognised by State Governments.	Do not approach any nursing home, hospital, maternity home, unauthorised institution or individual for adoption.
Read the Guidelines carefully on the website and follow the due procedure.	Do not upload any incorrect document, else your registration will be cancelled.
Follow the steps for completing your registration.	Do not pay any additional adoption charges other than what is prescribed in CARA Guidelines.
Please upload documents as per instructions.	Keep away from touts/middlemen. There is no role of touts/middlemen in adoption. They will mislead you to adopt a child illegally.
For adoption related charges, please refer Schedule-13 of the Guidelines Governing Adoption of Children (2015). Always make payment by cheque or draft and collect your receipt.	Through illegal adoption, you may unintentionally become part of child trafficking network. Save yourself from legal ramifications.

5 Steps to Adoption

1. DO YOUR RESEARCH

Before you get started, it’s very important to educate yourself about the adoption process and the various laws and regulations that have an effect on the journey. Part of your research process will also include the decision of whether or not to work with an adoption agency, whether to adopt domestically (from the US) or internationally (and if so, which

country), and determining whether or not you will need financial assistance through adoption aid grants or additional fundraising efforts. Show Hope's **blog** as well as our brand new **How to Adopt website** both offer a wonderful resource to families who are in the adoption process or considering adding to their family through adoption.

2. COMPLETE A HOME STUDY

Home studies are a required step for all potential adoptive families, regardless of what kind of adoption program you have decided to pursue. A home study is comprised of a series of meetings with a social worker to determine your eligibility as an adoptive family. You will have to provide certain documents including birth certificates, your marriage license, child abuse clearances and personal references, as well as undergo at least one in-home visit with all members of your family present. The goal of a home study is to ensure that you and your family are able to meet the needs of a child added through adoption. This process can take anywhere from two to ten months depending on the capacity of the home study agency and your efficiency in completing the required paperwork.

3. RECEIVE A REFERRAL

The next step is to work with your agency to complete the steps necessary to be matched to a waiting child. The manner in which this is accomplished can vary greatly between programs. For some, a family will be given a list of waiting children to review, and in others, birth parents or caseworkers choose the adoptive family based on their perception of which family would best meet the needs of a specific child. Once a family has been chosen, the referral is presented to the adoptive family who is then given the opportunity to accept the match. If accepted, the adoption process moves through the remaining necessary steps toward the goal of placement of the child into the family. The timeline from a completed home study to receiving a referral can be unpredictable and varies by the specific adoption program chosen.

4. COMPLETION OF PAPERWORK AND PLACEMENT

Once you have accepted the referral for your child, there will be final paperwork to complete to finish the legal process leading up to the placement of your child with your family. Once placement has happened, there will be a series of post placement visits by your agency to ensure that your son/daughter is doing well in the transition. For most domestic adoptions, there will be one major court appearance during which a judge will review all adoption documents and if in order, will issue a final adoption decree for your child. For international adoptions, this process can be a bit more complicated and often involves a series of court appearances in your child's birth country. In either case, once your child's adoption is finalized, your son or daughter will receive an amended birth certificate and will be a part of your family forever!

5. PARENT YOUR CHILD

This begins the biggest and most important step in the adoption process – being a family! Adoption does not end after the legal process is finalized, but is a lifelong journey that you and your family will continue to learn

from. If you need help to better understand the needs of your child or how to work through the challenges that can accompany a child who had difficult beginnings, consider joining Show Hope for an **Empowered to Connect conference**. There are many resources available to families as they seek connection and healing for their children

8.13 LET US SUM UP

Population studies is more a process of studying the population characteristics or of establishing the relationship between the population situation and its determinants or among the various dependent and in depended population characteristics and or consequences. Population studies, thus, is a process of conductive research into population matters while Population Education is a programme intended to impart education on population matters, issues, problems, etc. population studies help even to revise the population policy and programmes of population education.The basis goal of Population Education is to bring out an improvement in the quality of life at family and community level. Research is a goal directed activity like Population Education should eventually fulfil it"s technological function. It should lead to the improvement of the different population education processes which turn result in the achievement of it"s goal. These goal have been accepted as development of knowledge and understanding of the population phenomena, especially it"s relationship with different aspects of development, development of positive attitude, values and abilities to take responsible decisions concerning family size and quality of life both at the micro and macro levels.

8.14 UNIT END EXERCISES

Examine population education

Explain the needs of the Sex education.

8.15 ANSWER TO CHECK YOUR PROGRESS

‘Population education is an educational programme which provides for a study of population situation of the family, the community, Nation and world, with the purpose of developing in the students rational and responsible attitudes and behaviour towards that situation’. The National Seminar on Population Education held in Bombay gives a comprehensive definition of population education. ‘It is essentially related to human resource development. It is not only concerned with population awareness but also with the developing values and attitudes which take care of the quality and quantity of population. It must explain to the students cause and effect relationship, so as to enable them to make rational decision on their own behaviour on population matters’. R.C. Sharma states, ‘Population Education is the study of the human population in relation to his environment with a view to improve his quality of life without adversely affecting the environment.’ According to International Study of the Conceptualization and Methodology of Population Education, ‘Population education is an educational activity

which is a part of a total social learning process; is problem centred; derives its content from population studies; is concerned primarily with populationrelated interactions of individuals, is aimed specifically at improving the present and future quality of human life.'

 Revised National Policy on Education, 1992-Para (8.16): 'Population Education must be viewed as an important part of the nation's strategy to contain the growth of population starting at the primary and secondary school levels with inculcation of consciousness about the looming crisis due to expansion of population. Educational programmes should actively motivate and inform youth and adults about family planning arid responsible parenthood.'

Objectives, Importance and Characteristics

The following are the objectives of population education:

To develop an understanding of:

 Relevant demographic concepts and processes

 The rapid growth of population and its causes

 The influence of population trends on various aspects of human life

 The Close interaction of population growth and developmental programmes for raising the standard of living

 The evil effects of overpopulation on environment

 The scientific and medical advancement resulting in the imbalance between death and birth rate

 The biological factors and the phenomenon of reproduction responsible for continuation of species.

 To develop and attitude of responsibility and mutual help cooperation in all aspects of personal and family living.

 To provide students with a basic demographic vocabulary so that they are able to read and interpret demographic material with some understanding. To develop an appreciation of:

 The small family norms as proper and desirable

 The relation between population size and the quality of life

 The fact that the family size is a matter of deliberate choice and human regulation

 The relationship between the preservation of the health of the mother, the welfare of the children and the small size of the family

 The fact that the actions of each individual affects others and also that the personal and national decisions concerning family size and population have long ranging consequences for the whole world.

 To develop an awareness of population of population policies and programmes of the country.

SEX EDUCATION

Traditionally, adolescents in many cultures were not given any information on sexual matters, with the discussion of these issues being considered taboo. Such instruction, as was given, was traditionally left to a child's parents, and often this was put off until just before a child's marriage. The progressive education movement of the late 19th century, however, led to the introduction of "social hygiene" in North American school curricula and the advent of school-based sex education.[2] Despite early inroads of school-based sex education, most of the information on sexual matters in the mid-20th century was obtained informally from friends and the media, and much of this information was deficient or of dubious value, especially during the period following puberty, when curiosity about sexual matters was the most acute. This deficiency was heightened by the increasing incidence of teenage pregnancies, particularly in Western countries after the 1960s. As part of each country's efforts to reduce such pregnancies, programs of sex education were introduced, initially over strong opposition from parent and religious groups.

Sex education is the instruction of issues relating to human sexuality, including emotional relations and responsibilities, human sexual anatomy, sexual activity, sexual reproduction, age of consent, reproductive health, reproductive rights, safe sex, birth control and sexual abstinence. Sex education that covers all of these aspects is known as comprehensive sex education.[1] Common avenues for sex education are parents or caregivers, formal school programs, and public health campaigns.

The Objectives and Importance of Sex Education • The objectives of sex education are to help children understand the body structures of men and women and acquire the knowledge about birth • Teach children to establish and accept the role and responsibility of their own gender by acquiring the knowledge of sex. Understanding the differences and similarities between two genders in terms of body and mind will set up a foundation for the future development in their acquaintance with friends and lovers and their interpersonal relationship • Sex education is a kind of holistic education. It teaches an individual about self-acceptance and the attitude and skills of interpersonal relationship. It also helps an individual to cultivate a sense of responsibility towards others as well as oneself

8.16 Further readings

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UNIT IX FAMILY SIZE PREFERENCE ANDCONTRACEPTIVE BEHAVIOUR- METHODS OF CONTRACEPTION: CONVENTIONAL AND MODERN METHODS- MALE AND FEMALE; TEMPORARY METHODS; BEHAVIOURAL METHODS; MECHANICAL CONTRACEPTIVES

Structure

9.1 Introduction

Contraception, also known as birth control, is used to prevent pregnancy. There are many different birth control methods to help you and your partner prevent an unplanned pregnancy. You may be starting with a pretty good idea of what you are looking for, or you may not be sure where to start – or which method to choose.In this section, we review the methods that are available to help you understand the options and help

you narrow down the choices. You can always talk over your choices with your health care provider.

9.2 Objectives

After completing this unit you will be able to discover

The concept of contraception meaning

Emergency contraception

Hormonal contraception

Non –Hormonal Contraception

9.3 Meaning, Definition ,Purpose

Meaning

Contraception aims to prevent pregnancy. A woman can get pregnant if a man's sperm reaches one of her eggs (ova). **Contraception** tries to stop this happening by: keeping the egg and sperm apart. stopping egg production

Definition

Contraception (birth control) prevents pregnancy by interfering with the normal process of ovulation, fertilization, and implantation. There are different kinds of birth control that act at different points in the process.

Purpose

Every month a woman's body begins the process that can potentially lead to pregnancy. An egg (ovum) matures, the mucus that is secreted by the cervix (a cylindrical-shaped organ at the lower end of the uterus) changes to be more inviting to sperm, and the lining of the uterus grows in preparation for receiving a fertilized egg. Any woman who wants to prevent pregnancy must use a reliable form of birth control. Birth control (contraception) is designed to interfere with the normal process and prevent the pregnancy that could result. There are different kinds of birth control that act at different points in the process, from ovulation through fertilization to implantation. Each method has its own side effects and risks. Some methods are more reliable than other.

9.4 Emergency Contraception

9.5 Hormonal Contraception

Oral Contraceptive Pill Contraceptive Patch Vaginal Ring Intrauterine Contraception (IUC) Injectable Contraception

Non-Hormonal Contraception Male Condom Female Condom Sponge Cervical Cap Diaphragm Spermicides Vasectomy Tubal Ligation & Tubal Occlusion Intrauterine Contraception (IUC)

Natural Methods Fertility-Awareness Based Methods Lactational Amenorrhea Method (LAM) Withdrawal (Coitus interruptus)

Abstinence.

Some of the reasons that you may consider using emergency contraception include:

• Missed birth control pill, patch, or injection

• No contraception was used

• Non-consensual sexual intercourse (sexual assault)

• The condom slipped, broke, or leaked

• Error in the calculation of the fertility period Emergency contraception is intended for occasional use only, not as a regular method of birth control.

9.6 Morning after pills. Copper Intrauterine Device (IUD) ,Oral Contraceptive Pill

1. "Morning after pills" "Morning after pills" are the original method of emergency contraception. In the past, morning after pills were regular birth control pills, taken in higher doses, 12 hours apart. There are better and more effective methods available on the market today, with fewer side effects. all contain a progestin called levonorgestrel.

. 2. Copper Intrauterine Device (IUD) The most effective method of emergency contraception is a copper intrauterine device (IUD), which is inserted by a doctor within 7 days of unprotected intercourse. While currently available by prescription only, the copper IUD provides ongoing secure birth control.

Emergency Contraception

Emergency contraception is not to be used as a regular method of birth control but, if needed, it can help prevent unplanned pregnancies.If you have had unprotected sex and you already know that you do not want to get pregnant, emergency contraception can help prevent unplanned pregnancies if used as soon as possible.

Hormonal Contraception

Hormonal Contraception Oral Contraceptive Pill Contraceptive Patch Vaginal Ring Intrauterine Contraception (IUC) Injectable Contraception,

Oral Contraceptive Pill

The oral contraceptive pill, also known as birth control pill, is suitable for most healthy women, regardless of age, and can be used long-term. It is

one of the world's most prescribed medications – over 100 million women across the globe rely on it. There are two kinds of oral contraceptives, the combined oral contraceptive (COC), which contains both estrogen and progestin, and the progestin-only contraceptive (POP). The Pill is available at pharmacies but requires a prescription.

Hormonal Contraception

Advantages

Highly effective

Reversible

Does not interfere with sex

May reduce or eliminate menstrual flow and cramps

Regulates menstrual cycle

Decreases premenstrual symptoms

Disadvantages –

Effectiveness may be reduced by other medications –

May cause irregular bleeding or spotting

May cause breast tenderness, nausea, or headaches - Must be taken every day, at the same time May increase the risk of blood clots, particularly in women who have certain blood disorders or a family history of blood clots - Does not protect against STIs

How does it work? •

The oral contraceptive pill works by preventing the ovary from releasing an egg, thickening the cervical mucus making it difficult for the sperm to reach the egg, and changing the lining of the uterus making implantation difficult.

• The Pill is taken every day, ideally at the same time each day. Traditional pills are set up with pills for three weeks, followed by a pill-free week or a week of placebo pills.

• Newer pill options have adjusted the regimen to provide effective contraception with lower doses of hormones and as little as two days of placebo to minimize hormone fluctuations and side effects.

How effective is it?

•. Typical use failure rate: 90 of 1000 women during first year of use • Perfect use failure rate: 3 of 1000 women during first year of use.

Contains both estrogen and progestin

Advantages

Decreases acne

Decreases body and facial hair growth

Reduces the risks of endometrial,

ovarian and colon cancers

Reduces the risk of fibroids and ovarian cysts

May reduce perimenopausal symptoms

Disadvantages

Should not be used by women over the age of 35 who smoke

Progestin-Only Contraceptive (POP) Contains progestin only Advantages

May be suitable for women who cannot take estrogen

May be suitable for breastfeeding women

May be suitable for women over 35 years old who smoke

Disadvantages - Some women may have hormonal side effects: acne, headaches,

breast sensitivity, mood issues, unwanted hair growth.

9.7 Vaginal Ring ,Intrauterine Contraception (IUC)

Vaginal Ring

The vaginal ring is a soft, flexible, clear plastic ring that measures 54 mm in diameter and is inserted into a woman's vagina where it slowly releases the hormones, estrogen and progestin, for three weeks.

How does it work? •

The vaginal ring prevents pregnancy primarily by stopping the ovaries from releasing an egg, but it may also thicken the cervical mucus (making it harder for sperm to get into the uterus) and make the uterine lining thin. Its method of action is very similar to the Pill.

• The ring comes in only one size, and does not need to be in a particular position in the vagina to be effective. It is held in place by the walls of the vagina and a woman usually cannot feel the ring once it is in. The woman inserts and removes the ring herself and most women find this easy to do. • The ring is worn inside the vagina for three weeks, followed by a one-week ring-free interval allowing a period to occur. At the end of the ring-free week, the woman inserts another ring to begin a new cycle.

How effective is it?

• Typical use failure rate: 90 of 1000 women during first year of use • Perfect use failure rate: 3 of 1000 women during first year of use

Advantages

+ Highly effective, reversible and safe

+ May reduce menstrual flow and cramps

+ Regulates menstrual cycle

Decreases premenstrual symptoms

+ Reduces the risks of endometrial, ovarian and colon cancers

+ Reduces the risk of fibroids and ovarian cysts

Does not have to be remembered each day

Disadvantages

- May cause irregular bleeding or spotting

- May cause breast tenderness, nausea, or headaches May cause vaginal irritation, discomfort or discharge Requires remembering to change the ring once per month

- Does not protect against STIs

Intrauterine Contraception (IUC) Intrauterine contraceptives (IUCs) are long-acting reversible contraceptive (LARC) methods that are used by over 150 million women worldwide. They are the most effective forms of birth control available. IUCs are small T-shaped devices that are inserted in the uterus by a health care professional in a clinic. There are two types of intrauterine contraception: the Copper intrauterine device (Cu-IUD) and the levonorgestrel-releasing intrauterine system (LNG-IUS), which contains a progestin. How does it work? • LNG-IUS: The small cylinder on the IUC contains the hormone levonorgestrel, which is slowly released. The lining of the uterus becomes thinner and the cervical mucus becomes thicker which makes it harder for sperm to enter the uterus. • The IUC is inserted by a health professional, in a clinic. The procedure is fairly simple, does not require anaesthesia, and only takes a few minutes. • Depending on the device, the IUC can remain inserted for 3-10 years, before needing to be replaced.

How effective is it?

• Typical use failure rate: 2 of 1000 women during first year of use

• Perfect use failure rate: 2 of 1000 women during first year of use

• IUCs are one of the most effective methods of contraception available

Advantages

+ Highly effective, reversible and safe

+ Long term, forgettable and invisible

+ Cost-effective

+ May be suitable for women who cannot take estrogen

+ May be suitable for breastfeeding women + Reduces risk of endometrial cancer

Disadvantages

- Initially, irregular bleeding or spotting may occur - Expensive

- Some pain or discomfort during insertion

- Rare risks with the insertion could include infection, perforation of the uterus, or expulsion of the IUC

- Does not protect against STIs.

Levonorgestrel-Releasing Intrauterine System (LNG-IUS) contains a progestin Advantages

+ A minimal amount of hormones is absorbed in your blood

+ May reduce menstrual flow and cramps

+ May lead to absence of period

+ Regulates menstrual cycle

+ Improves symptoms of endometriosis

Disadvantages

- Some women may experience hormonal side effects: acne, headaches,

breast tenderness, mood issues

- Irregular periods, light or no menstrual

periods – which some think of as an advantage, others as a disadvantage.

Injectable Contraception Injectable contraception, also known as the birth control shot, is a highly effective and reversible method of contraception. The injection contains a progestin, but does not contain estrogen. It is administered four times a year, so it may be a good choice for women who have trouble following a daily, weekly, or monthly routine.

How does it work?

• The injection is given by a health-care professional in the muscle – commonly in the upper arm or buttocks, of a woman, every 12 to 13 weeks (four times a year).

• The progestin hormone prevents the ovaries from releasing an egg. It also thickens the cervical mucus making it difficult for sperm to reach the egg and changes the lining of the uterus making implantation difficult.

How effective is it?

• Typical use failure rate: 60 of 1000 women during first year of use • Perfect use failure rate: 2 of 1000 women during first year of use

• Injectable contraception is one of the most effective methods of contraception available

Advantages

+ Highly effective and long lasting

+ Reversible

+ Safe, convenient and discreet

+ Does not interfere with sex

+ Effectiveness is not affected by most medications

+ May be suitable for women who cannot take estrogen

+ May be suitable for breastfeeding women + May be suitable for women over the age of 35 who smoke

+ Reduces or eliminates periods

+ Reduces menstrual cramps and PMS

+ Reduces the risk of endometrial cancer and fibromas

+ May improve symptoms of endometriosis and chronic pelvic pain

+ May decrease the incidence of seizures in women who have epilepsy

Disadvantages

- Initially, irregular bleeding is the most common side effect - Less/lighter bleeding, to no periods

- Heavier and more frequent bleeding, including spotting in between periods - Causes a decrease in bone mineral density which may return to normal when a woman stops using the injection

- May be associated with change of appetite and/or weight gain in some women - Some women may have hormonal side effects: acne, headaches, breast sensitivity, mood issues/ depression and a change in sex drive

- It can take a longer time to get pregnant after getting your last shot.

For some, it can be approximately 6 to 10 months after the last injection for the ovaries to start releasing eggs again

- Must be administered by a health-care professional every 3 months

- Does not protect against STIs.

9.8 Non-Hormonal Contraception

Male Condom

Female Condom

Sponge Cervical Cap

Diaphragm

Spermicides

Vasectomy

Tubal Ligation & Tubal Occlusion

Intrauterine Contraception (IUC)

Male Condom Male condoms are inexpensive, readily available without a prescription, and used only at the time of sexual activity. They are worn over the penis during sexual intercourse or oral sex and they come in a variety of sizes, thinness, textures, and colours/flavours. They are also available with a wide selection of lubricants on the condom to help enhance sensitivity and pleasure for both partners (i.e. warming/tingling sensations, premium silicone-base, climax-control). Most condoms are made of latex, but non-latex condoms are also available in polyurethane and polyisoprene. Latex, polyurethane and polyisoprene condoms are also effective for preventing most sexually transmitted infections (STIs). How does it work? • The condom is worn over the penis during sexual activity. It should be put on before any skin-to-skin genital contact occurs. • The condom acts as a physical barrier preventing direct contact between the penis and the vagina. It prevents the exchange of body fluids and also traps the sperm in the condom so it cannot fertilize the egg. • The condom is thrown away after intercourse. A new one must be used for each repeated act of intercourse.

How effective is it?

- Typical use failure rate: 180 of 1000 women during first year of use
- Perfect use failure rate: 20 of 1000 women during first year of use

Advantages

+ Widely available without a prescription

+ Inexpensive, safe and effective

+ Protect against most STIs

+ Non-latex options available for those with latex allergies or sensitivities

+ Both partners participate in their use – shared responsibility

+ Hormone-free

+ May decrease the risk of cervical cancer

+ May help the wearer avoid premature ejaculation

+ May be used with other contraception methods to increase their contraceptive effectiveness

Disadvantages

- Must be available at time of sexual activity

- Must be stored and handled properly –be sure to check the expiration date - May reduce sexual spontaneity

- May slip or break during intercourse

- May reduce sensitivity for either partner

- May interfere with the maintenance of an erection

- People with latex allergies or latex sensitivity cannot use latex condoms, but may be able to use non-latex condoms

- Requires participation of both partners.

Female Condom

The female condom is a soft, loose-fitting, seamless nitrile polymer sheath containing two flexible rings, one at each end. It is inserted into the vagina before sex and works by holding in the sperm, preventing it from entering the vagina. How does it work? • The female condom is a barrier contraception method, preventing contact between the sperm and the vagina. • The external ring at the open end of the condom sits outside the vagina, providing some protection. The internal ring at the closed end of the condom is inserted into the vagina and helps to keep it in place. • The sheath is coated on the inside with a silicone-based lubricant. • It can be placed in the vagina up to 8 hours before sexual intercourse. • A new female condom should be used for each repeated act of sexual intercourse.

How effective is it?

• Typical use failure rate: 210 of 1000 women during first year of use

• Perfect use failure rate: 50 of 1000 women during first year of use

Advantages

+ Protects against both pregnancy and STIs

+ The woman has control and autonomy in placing the condom

+ Can be used by people with latex allergies

+ Can be used with oil-based lubricants

+ Male partner may find it more comfortable and less constricting than male condoms

+ The internal and external rings of the female condom may increase sexual stimulation + Available at pharmacies without a prescription

Disadvantages

- Some women may have trouble inserting it correctly

- More expensive than male condoms

- Potential challenges include slippage and breakage

- The rings on the female condom may cause discomfort during sex

- Female condoms may be noisier than male condoms during sex

Contraceptive Sponge

The contraceptive sponge is a small, disposable, polyurethane foam device that is placed in the vagina. It fits over the cervix to provide a physical barrier to prevent sperm from entering. The sponge also contains a spermicide, which helps to absorb and trap sperm.

How does it work?

• The contraceptive action of the sponge is primarily provided by the spermicide, which is slowly released over a period of 24 hours.

• The spermicide absorbs and traps the sperm and destroys the sperm cell membrane.

• The sponge itself also provides a physical barrier to prevent sperm from entering the cervix.

• The sponge can be inserted into the vagina by the women using it up to 24 hours before intercourse. One side has a concave dimple that fits over the cervix. The other side has a loop to facilitate removal.

• The sponge comes in one size only and is available in pharmacies without a prescription.

• Protection begins immediately when inserted and lasts for 24 hours even with repeated acts of intercourse. It should be left in the vagina for at least 6 hours after the last act of intercourse but should not remain in the vagina for more than 30 hours total.

How effective is it?

• The sponge is less effective for women who have given birth.

Effectiveness can be increased by using the sponge in combination with a male condom. • Parous women – women who have given birth

• Nulliparous women – women who have not given birth

• Typical use failure rate - parous women: 240 of 1000 women during first year of use. • Perfect use failure rate - parous women: 200 of 1000 women during first year of use.

• Typical use failure rate - nulliparous women: 120 of 1000 women during first year of use.

• Perfect use failure rate - nulliparous women: 90 of 1000 women during first year of use.

Advantages

+ It offers a barrier method and spermicide in one

+ Provides 12-hour protection, and doesn't need to be replaced for repeated sex

during this time

+ Enhances the effectiveness of other forms of contraception such as condoms

+ No hormones

+ Available at pharmacies without a prescription

Disadvantages

- Increases the risk of vaginal and cervical irritation or abrasions, which increases the risk of transmission of HIV

- Some women may have trouble inserting it correctly - Does not protect against STIs - Higher failure rate compared to other types of contraception.

Cervical Cap

The cervical cap is a deep silicone cap that fits against the cervix and prevents sperm and bacteria from entering.

How does it work?

• The cervical cap serves as a physical barrier between sperm and the cervix.

• It should always be used with a gel that immobilizes or kills sperm. The gel forms a physical cellulose barrier in front of the cervix and lowers the pH of the vaginal fluid, thereby inhibiting sperm motility.

• The cap can be inserted into the vagina by the women using it up to 2 hours before having sex.

• The gel should be reapplied, using and applicator, for each repeated act of intercourse or after 2 hours has passed

. • It should be left in the vagina for at least 6 hours after intercourse but should not remain in the vagina for more than 48 hours total. • Cervical caps can be purchased online or from a pharmacy with a prescription. It should be replaced every year.

How effective is it?

• There is currently no data on the efficacy/ effectiveness of the only cervical cap and gel that is available in Canada. Some preliminary studies have shown that the cervical cap has a higher failure rate compared to other types of contraception.

Advantages

+ No hormones

+ Can be used by women who are breastfeeding

+ Available in three different sizes

Disadvantages

- Higher failure rate compared to other types of contraception

- Increased risk of recurrent urinary tract infections

- Increased risk of toxic shock syndrome

- Some women may have trouble inserting it correctly

- Gel must be reapplied after each act of intercourse

- A poor fit or silicone allergy will prevent some women from using the cap

- Does not protect against STIs

Diaphragm

The diaphragm is a cap, made of latex or silicone and nylon, that covers the cervix and prevents sperm and from entering. The diaphragm should always be used with a gel, which is placed inside the diaphragm to immobilize or kill sperm.

How does it work?

• The diaphragm serves as a physical barrier between sperm and the cervix.

• It should always be used with a gel that immobilizes or kills sperm.

• The gel forms a physical cellulose barrier in front of the cervix and lowers the pH of the vaginal fluid, thereby inhibiting sperm motility.

• The diaphragm can be inserted into the vagina by the women using it up to 2 hours before having sex.

• The diaphragm should be left in the vagina for at least 6 hours after intercourse but should not remain in the vagina for more than 24 hours total.

• If there is repeated intercourse within the first 6 hours, more gel should be inserted with an application (the diaphragm should not be removed).

How effective is it?

• Data is lacking on the efficacy/effectiveness of the diaphragm with the gel that is currently available in Canada. Previous studies based on diaphragm use with

Spermicides

A chemical called nonoxynol-9 comes in the form of cream (only for use with diaphragms), gel, foam, film, or suppository. By inserting spermicide in front of the cervix, in the vagina, it destroys sperm on contact. Spermicides should be used along with another method of contraception, such as a condom, because alone they are not highly effective.

How does it work?

• Nonoxynol-9 is a surfactant that destroys the sperm cell membrane.

9..10 Spermicides are available at pharmacies without a prescription, in the form of cream, gel, foam, film, or suppository.

• Spermicidal film must be inserted into the vagina at least 15 minutes before intercourse. It will melt and disperse. If more than 3 hours have passed before intercourse, another film must be inserted.

• Spermicidal foam is inserted into the vagina using an applicator. It is effective immediately and for up to one hour after insertion. It must be applied again for each act of intercourse.

How effective is it? • Vaginal spermicides are among the least effective of all contraception options. Failure rates in the first year of use vary from 18% with perfect use to 28% with typical use. • Spermicides should be used with another barrier method of contraception, such as a diaphragm or sponge.

Advantages

+ No hormones

+ When used with another barrier method, effectiveness increases

+ May also protect against bacterial infections and pelvic inflammatory disease

Disadvantages

- Not highly effective

- Using spermicide can be messy

- Must be inserted right before sex, because it’s only effective for one hour

- May irritate the entrance of the vagina or the tip of the penis

- May increase the risk of HIV transmission

- Does not protect against STIs.

Vasectomy Male sterilization by vasectomy is a permanent surgical procedure to close or block the vas deferens (the tubes that carry sperm to the penis). Since it is permanent, this option is especially for those who have decided that their family is complete or that they don't want to have children. Compared to tubal ligation, vasectomy is safer, more effective, less expensive, and less invasive.

How does it work?

• In a vasectomy procedure, the vas deferens is partially removed or blocked, so that no sperm is released to fertilize the egg.

• Using local anaesthesia, a health professional will reach the vas deferens either by making a small incision on the skin of the scrotum (conventional vasectomy) or by making a small puncture on the skin of the scrotum (no-scalpel vasectomy). • Another form of contraception is required until a semen analysis shows no sperm.

How effective is it?

• Although vasectomy is highly effective, failures do occur and can occur many years after the procedure. For every 100 women who rely on vasectomy for contraception, women will become pregnant.

Advantages

+ Safe and highly effective

+ Long-lasting – permanent

+ Simple procedure, no follow up required (aside from sperm analysis)

+ Does not interfere with sex

+ No hormones

+ Discreet and cost-effective

+ Does not affect sexual function

+ Less invasive and fewer complications than female sterilization

+ No significant long-term side effects

+ Allows the male partner to assume some responsibility for contraception

Disadvantages

- Permanent and irreversible

- Risk of having regrets later on

- Not effective immediately

– must use another contraception method for 3 months and do a follow-up sperm analysis that shows no sperm are present in the semen

- Possible short-term surgery-related complications: pain, bleeding, vasovagal reaction, infection at the incision site, bruising and swelling of the scrotum - Rarely, the vas deferens could reconnect by themselves

Tubal Ligation & Tubal Occlusion

Female sterilization by tubal ligation is a permanent surgical procedure where the two fallopian tubes, which transport the eggs from the ovaries to the uterus, get disconnected. Tubal ligation is considered permanent, because reversal is costly, difficult, and not guaranteed. Female sterilization by tubal occlusion is a permanent procedure where a micro-insert is placed into each of the fallopian tubes. The micro-inserts work with your body to form a natural barrier that keeps sperm from reaching the eggs, preventing pregnancy.

How does it work?

• There are a few types of one-day surgeries/ procedures for female sterilization, which is performed by a gynaecologist: Tubal ligation:

• Laparoscopy – using a general anesthesia, the doctor will make small incisions over the abdomen and either clip, burn or remove the fallopian tubes.

• Abdominally – during a caesarean section, a gynaecologist can access the fallopian tubes to either clip or remove them. Tubal occlusion:

• Hysteroscopy – using only local anesthesia, a gynaecologist will put micro-inserts in your fallopian tubes through a vaginal approach. It takes 3 months for this method to be effective, at which time a confirmation test (e.g. x-ray, ultrasound) is done to make sure the tubes are fully blocked.

How effective is it?

• Although female sterilization is highly effective, failures do occur and can occur many years after the procedure. Failure rates vary on which technique is used.

• Be sure to review the latest data available with your health care provider before selecting the option that is most appropriate for your needs.

Non-Hormonal Contraception

Advantages

+ Safe and highly effective

+ Long-lasting – permanent

+ Simple procedure

+ Does not interfere with sex

+ Does not affect sexual function

+ Discreet and cost-effective

+ No hormones

+ May reduce the risk of ovarian cancer (specific to tubal ligation)

+ No incisions or scars (specific to tubal occlusion with micro-inserts)

+ Can be safely performed in an outpatient setting (specific to tubal occlusion with micro-inserts)

Disadvantages

- Permanent and irreversible

- Risk of having regrets later on

- Not effective immediately when micro-inserts are used

– must use another contraception method for 3 months and do a follow-up confirmation test (e.g. x-ray, ultrasound) that shows if tubes are fully blocked (specific to tubal occlusion with micro-inserts)

- Possible short-term surgery-related complications: pain, bleeding, infection at the incision site, trauma to adjacent organs in the abdomen

- Possible procedure-related complications during and following the micro-inserts placement: pain, cramping and vaginal bleeding (specific to tubal occlusion with micro-inserts) - Risk of ectopic pregnancy if failure occurs

- Rarely, risk of not being able to put in the micro-inserts or of them slipping out (specific to tubal occlusion with micro-inserts)

- Follow-up may be required (x-ray) (specific to tubal ligation) - Rarely, the fallopian tubes could reconnect by themselves (specific to tubal ligation) - Does not protect against STIs.

9.11.Intrauterine Contraceptives (IUCs)

Intrauterine contraceptives (IUCs) are long-acting reversible contraceptive (LARC) methods that are used by over 150 million women worldwide. They are the most effective forms of birth control available. IUCs are small T-shaped devices that are inserted in the uterus by a health care professional in a clinic. There are two types of intrauterine contraception: the Copper intrauterine device (Cu-IUD) and the levonorgestrel-releasing intrauterine system (LNG-IUS), which contains a progestin.

How does it work?

• Cu-IUD: The presence of the foreign body, the IUC itself, creates a hostile environment leading to prevention of a pregnancy.

• The IUC is inserted by a health professional, in a clinic. The procedure is fairly simple, does not require anaesthesia, and only takes a few minutes.

• Depending on the device, the IUC can remain inserted for 3-10 years, before needing to be replaced.

How effective is it?

• Typical use failure rate: 8 of 1000 women during first year of use

• Perfect use failure rate: 8 of 1000 women during first year of use

• IUCs are one of the most Copper intrauterine device (Cu-IUD) and the levonorgestrel-releasing intrauterine system (LNG-IUS), which contains a progestin.

How does it work?

• Cu-IUD: The presence of the foreign body, the IUC itself, creates a hostile environment leading to prevention of a pregnancy.

• The IUC is inserted by a health professional, in a clinic. The procedure is fairly simple, does not require anaesthesia, and only takes a few minutes.

• Depending on the device, the IUC can remain inserted for 3-10 years, before needing to be replaced.

How effective is it?

• Typical use failure rate: 8 of 1000 women during first year of use

• Perfect use failure rate: 8 of 1000 women during first year of use

• IUCs are one of the most effective methods of contraception available

Advantages

+ Highly effective + Reversible, safe and cost-effective

+ Long term, forgettable and invisible

+ May be suitable for women who cannot take estrogen

+ May be suitable for breastfeeding women

+ Reduces risk of endometrial cancer

Disadvantages

- Initially, irregular bleeding or spotting may occur

- Expensive

- Some pain or discomfort during insertion

- Rare risks with the insertion could include infection, perforation of the uterus, or expulsion of the IUC

- Does not protect against STIs.

Copper Intrauterine Device (Cu-IUD)

Advantages

+ May be used as emergency contraception within 7 days of unprotected sex

+ Does not contain hormones

Non-Hormonal Contraception

Disadvantages - May increase menstrual flow and cramps, - May increase pain during periods.

Natural Methods

Natural Methods Fertility-Awareness Based Methods

Lactational Amenorrhea Method (LAM)

Withdrawal (Coitus interruptus)

Abstinence.

Fertility-Awareness Based Methods Ovulation is the time during a woman's menstrual cycle when she is most likely to get pregnant. Conception can occur when sexual intercourse takes place during the fertile window, from 5 days before to 1 day following ovulation. Fertility awareness-based methods (FABs) rely upon avoiding unprotected sex during this fertile window.

How does it work?

When using fertility awareness-based methods, the first thing to do is to become familiar with your menstrual cycle.

There are several methods to determine when ovulation occurs:

• Measuring your basal body temperature every day and charting it on a special form;

• Checking your urine with an ovulation kit to measure the LH hormone;

• Observing changes in your cervical mucus;

• Using an app to follow the calendar method and track your menstrual cycles and ovulation;

• Or a combination of all of these methods. Using these methods, you can calculate your fertile window and then avoid having sex during this time.

How effective is it?

24 out of every 100 couples who use fertility awareness-based methods each year will have a pregnancy, based on typical use.

Advantages

+ Safe

+ No side effects

+ Little cost

+ These methods are considered natural

+ No hormones

+ Allows you to learn about your own body

Disadvantages

- This method is the least effective in preventing pregnancy

- Requires a lot of practice to learn how to use this method correctly

- It can be tricky, because not all menstrual cycles are regular

- Can be challenging to avoid sex at certain times

- Requires both partners to be fully committed to using the method

- Does not protect against STIs.

Lactational Amenorrhea Method (LAM)

Lactational Amenorrhea Method (LAM) is used by a woman who has just given birth and is exclusively breastfeeding. This method is highly effective for the first six months after childbirth, provided the woman breastfeeds the baby at least every four hours during the day and every six hours through the night, and that her menstrual period has not yet returned. After six months fertility may return at any time. How does it work? The hormones that trigger lactation (producing breastmilk) interfere with the release of the hormones that trigger ovulation. The more you nurse your baby, the less likely you are to ovulate.

Advantages

+ It is a natural way to prevent pregnancy after giving birth

+ Safe and convenient

+ No cost

+ Breastfeeding has many other advantages for the mother and the baby.

Disadvantages

- Effectiveness is limited to only 6 months following childbirth

- May be difficult for some to exclusively breastfeed and not use any formula

- Breastfeeding may reduce vaginal lubrication when a woman is having sex

- Does not protect against STIs.

Withdrawal (Coitus interruptus)

Withdrawal, also known as the pull out method, is an attempt to avoid having any sperm ejaculated into the vagina or on the vulva during sex. The male withdraws his penis from the vagina and away from the external genitalia of the female partner prior to ejaculation. Both partners must be in agreement on this method, and must be prepared to deal with an unplanned pregnancy, which can occur in 1 out of 5 users.

How does it work?

During sex, the male withdraws his penis from the vagina and away from the external genitalia of the female partner prior to ejaculation. It can be difficult and both partners have to be really careful because right before ejaculation, there is some fluid released from the penis that contains sperm.

Advantages

+ It is considered a natural method

+ Safe and convenient

+ No cost

+ No hormones

+ It is immediate for partners who have entered into a sexual act without having an alternative method

+ No consultation or prescription required

Disadvantages

- It's not easy, it takes a lot of self-control

- It is a risky practice – even if a man pulls out in time, pregnancy can still happen

- Does not protect against STIs.

Abstinence

Abstinence refers to not having sex. There are many forms of sexual abstinence, but in terms of using this as a method of contraception, it means avoiding vaginal intercourse. This type of abstinence can be effective for preventing unwanted pregnancy while allowing a couple to be involved in other forms of closeness, but it has a significant failure rate.

How does it work?

Choosing not to have sex may seem to be the most certain way to prevent pregnancy. It takes a very high level of self-control and communication between partners. If abstinence is used as a contraception method, both partners must make sure to avoid any contact between the penis and the vagina and also be cautious not to have the pre-ejaculate or ejaculate, come in close contact with the vagina.

Advantages

+ Theoretically the most effective method of contraception

+ Safe and no cost

+ No side effects

Disadvantages

- Can be challenging over time

- Partners are unprepared if a change of mind suddenly occurs

- Requires both partners to be fully committed to using the method

How effective is it?

Total abstinence is theoretically 100% effective in preventing pregnancy. In practice, however, abstinence is not particularly effective. Abstinence education programs have not been found to reduce the risk of unplanned pregnancy, nor reduce STIs. This method is much more effective with older, mature couples and less effective when alcohol or drugs are involved and when there are strong sexual feelings between a couple.

9.12 Let us sum up

The family planning programmes are successful to a great extent but India still has a long way to go. Family planning has always been the main emphasis in population policies adopted by the Government of India. However, there is a need of more public awareness and public participation. Gender inequality, preference of sons over daughters, low standard of living, poverty, traditional thought processes of Indians, age-old cultural norms continue to cause poor family planning practices all across the country.

9.13 Unit end exercise

Examine The Hormonal methods of contraception

Analyse the merits and demerits of male and female condom

9.14 Answer to check your progress

Hormonal Contraception

Hormonal Contraception Oral Contraceptive Pill Contraceptive Patch Vaginal Ring Intrauterine Contraception (IUC) Injectable Contraception,

Oral Contraceptive Pill

The oral contraceptive pill, also known as birth control pill, is suitable for most healthy women, regardless of age, and can be used long-term. It is one of the world's most prescribed medications – over 100 million women across the globe rely on it. There are two kinds of oral contraceptives, the combined oral contraceptive (COC), which contains both estrogen and progestin, and the progestin-only contraceptive (POP). The Pill is available at pharmacies but requires a prescription.

Hormonal Contraception

Advantages

Highly effective

Reversible

Does not interfere with sex

May reduce or eliminate menstrual flow and cramps

Regulates menstrual cycle

Decreases premenstrual symptoms

Disadvantages –

Effectiveness may be reduced by other medications –

May cause irregular bleeding or spotting

May cause breast tenderness, nausea, or headaches - Must be taken every day, at the same time May increase the risk of blood clots, particularly in women who have certain blood disorders or a family history of blood clots - Does not protect against STIs

How does it work? •

The oral contraceptive pill works by preventing the ovary from releasing an egg, thickening the cervical mucus making it difficult for the sperm to reach the egg, and changing the lining of the uterus making implantation difficult.

• The Pill is taken every day, ideally at the same time each day. Traditional pills are set up with pills for three weeks, followed by a pill-free week or a week of placebo pills.

• Newer pill options have adjusted the regimen to provide effective contraception with lower doses of hormones and as little as two days of placebo to minimize hormone fluctuations and side effects.

Male Condom Male condoms are inexpensive, readily available without a prescription, and used only at the time of sexual activity. They are worn over the penis during sexual intercourse or oral sex and they come in a variety of sizes, thinness, textures, and colours/flavours. They are also

available with a wide selection of lubricants on the condom to help enhance sensitivity and pleasure for both partners (i.e. warming/tingling sensations, premium silicone-base, climax-control). Most condoms are made of latex, but non-latex condoms are also available in polyurethane and polyisoprene. Latex, polyurethane and polyisoprene condoms are also effective for preventing most sexually transmitted infections (STIs). How does it work? • The condom is worn over the penis during sexual activity. It should be put on before any skin-to-skin genital contact occurs. • The condom acts as a physical barrier preventing direct contact between the penis and the vagina. It prevents the exchange of body fluids and also traps the sperm in the condom so it cannot fertilize the egg.

Male Condom Male condoms are inexpensive, readily available without a prescription, and used only at the time of sexual activity. They are worn over the penis during sexual intercourse or oral sex and they come in a variety of sizes, thinness, textures, and colours/flavours. They are also available with a wide selection of lubricants on the condom to help enhance sensitivity and pleasure for both partners (i.e. warming/tingling sensations, premium silicone-base, climax-control). Most condoms are made of latex, but non-latex condoms are also available in polyurethane and polyisoprene. Latex, polyurethane and polyisoprene condoms are also effective for preventing most sexually transmitted infections (STIs). How does it work? • The condom is worn over the penis during sexual activity. It should be put on before any skin-to-skin genital contact occurs. • The condom acts as a physical barrier preventing direct contact between the penis and the vagina. It prevents the exchange of body fluids and also traps the sperm in the condom so it cannot fertilize the egg.

9.15 Further readings

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UNIT X CHEMICAL CONTRACEPTIVE; SEMI-PERMANENT METHODS: ABORTION AND I.U.C.D.

10.1 Introduction

Ointments, creams, suppositories, gels and vaginal tablets are chemical contraceptives for the woman. The chemical contraceptives get substances killing spermiums. You are imported into the sheath in front of the sexual intercourse in which they dissolve by body heat to a foam like means. It is prevented by this foam in addition that the spermiums reach the womb.

Chemical contraceptives are available in the pharmacies or drugstore without a prescription. The chemical contraceptives aren't very sure, the Pearl index is 25.
The woman introduces the chemical contraceptives approx. ten minutes before the penetrating of the penis into the sheath. An hour keeps the effect and a new means must be introduced to the sheath at every sexual intercourse even if it takes place within this hour. The only prophylaxis with chemical contraceptives isn't very sure, it is therefore recommendable to prevent with additional prophylaxis methods such as diaphragm. One should pay attention with condoms since some chemical means attack and make porous the rubber. Barrier contraceptive methods are another type of contraceptive method used for preventing pregnancy and certain sexually transmitted infections. Various male and female barrier methods of contraception have been in use for centuries, and they are one of the oldest methods in use. They are designed to prevent the

passage of sperm into the uterus during the sexual act. The success of such methods depends on the quality of the barriers, and the motivation and willingness of the couple to use the method. The male condom is the only male barrier known, while a number of different female barriers exist, such as the diaphragm, female condom and cervical cap, all of which are widely available. Spermicides are often used in conjunction with barrier methods. They are chemical barriers which can also be used on their own.

10.2 Objectives

After studying this unit you will be able to understand

The chemical contraceptives

The advantages and dis advantages

The semi-permanent contraceptives methods

Abortion and its process

IUCD methods

10.3 Chemical barriers

Chemical barriers or **spermicides** are sperm-killing substances, available as foams, creams, gels, films or suppositories, which are often used in female contraception in conjunction with mechanical barriers and other devices. Spermicides are usually available without a prescription or medical examination.

10.4 Types of chemical contraceptive

The diaphragm

Mechanism of use

Although this barrier method is not common in Ethiopia, it is helpful for you to learn about some of the basics of the diaphragm. The **diaphragm** is a small dome-shaped latex cup with a flexible ring that fits over the cervix. The cup acts as a physical barrier against the entry of sperm into the uterus. A diaphragm is usually used along with spermicide.

Effectiveness

The diaphragm has a relatively high failure rate, about 16% over the first year of use. However, it is considered a good choice by women whose health or lifestyle prevents them from using more effective hormonal contraceptives.

How to insert a diaphragm

During the fitting process, a fitting ring is inserted into the vagina. The largest ring that fits comfortably is usually the size chosen. Diaphragms can be inserted up to two hours before sex, because spermicide is only effective for two hours. If the woman inserts her diaphragm more than two hours before intercourse, she will have to insert more spermicide into

her vagina later (see Box 8.2 for guidelines). As a general rule, diaphragms should be replaced every one to two years.

Guidelines for diaphragm insertion

Before or after each use, the woman should hold the diaphragm up to the light, or fill it with water, to check for holes, tears or leaks.

A small amount of spermicide (about one tablespoon) is usually placed inside the cup, and some is smeared around the lip of the cup.

The device is then folded in half and inserted into the vagina by hand, or with the assistance of a plastic inserter.

The diaphragm should fit over the cervix, blocking entry to the uterus.

If more than six hours pass before repeat intercourse occurs, the diaphragm can be left in place, and extra spermicide inserted into the vagina using an applicator.

The diaphragm must remain in the vagina for six to eight hours after the final act of intercourse, and can safely stay there up to 24 hours after insertion.

The diaphragm should be washed with soap and warm water after each use, and then dried and stored in its original container, which should be kept in a cool dry place.Advantages and disadvantages of the diaphragm

Advantages

The diaphragm can be carried in a purse, can be inserted up to two hours before intercourse begins, and usually cannot be felt by either partner. It also does not interfere with a woman's hormones.

Disadvantages and complications

Common complications when using a diaphragm are that some women dislike having to insert the device every time they have intercourse, or have trouble mastering the insertion and removal process. The diaphragm can also be dislodged during sex and the failure rate is high, about 16%. Additionally, the diaphragm does not protect against STIs. Frequent urinary tract infections and vaginal infections can be a problem for some women when using a diaphragm.

Spermicides

Mechanism of use

Spermicides are sperm-killing chemicals inserted deep into the vagina, near the cervix, before sex. They are available in foaming tablets, melting or foaming suppositories, melting film, jelly and cream. Jellies, creams and foam from cans can be used on their own, with a diaphragm, or with condoms. Films, suppositories, foaming tablets or foaming suppositories can be used on their own or with condoms.

Effectiveness of spermicides

They work by causing the membrane of the sperm cells to break, killing them or slowing their movement. This keeps the sperm from meeting the egg. Spermicides should not be used alone as the primary method of birth control.Spermicides are one of the least effective family planning methods, with a 29% chance of pregnancy, and as with other methods effectiveness depends on the user. Risk of pregnancy is greatest when spermicides are not used with every act of sex. In general, spermicides may be an appropriate choice for women who need back-up protection against pregnancy (for instance, if they forget to take their birth control pills). Spermicides should not be used alone as the primary method of birth control.

Advantages and disadvantages of spermicides

Spermicides are safe to use. They are a female-controlled method that almost every woman can use without the need to consult a healthcare provider first. They can increase vaginal lubrication, so that vaginal dryness and friction will be minimised. They are much easier to use with a little practice and can be stopped at any time. They have no hormonal side effects. Unfortunately they are one of the least effective methods on their own.

10. 5 Semi- permanent methods of contracetives.

Intrauterine Contraception

An intrauterine device (IUD) is a small plastic T-shaped device that your AOA doctor inserts into your uterus. The plastic contains copper or synthetic progesterone that prevents pregnancy. A progesterone IUD can remain in place p to five years and a copper IUD up to 10 years and both are 99% effective. An IUD creates changes inside the uterus and in the cervical mucus that kills or immobilizes sperm. It also changes the lining of the uterus, which prevents implantation should fertilization occur. IUDs do not prevent sexually transmitted disease (STDs).

Hormonal Methods

Basic hormonal methods include implants, injections, oral contraceptives, the patch, and the hormonal vaginal contraceptive ring. Your AOA healthcare provider can help you sort through the options and weigh the pros and cons that are specific to your time in life and sexual activity.

All of the various hormonal methods are between 91% and 99% effective in preventing pregnancy. As with IUDs, hormonal methods do not prevent STDs.

Barrier Methods

Barrier methods include male condoms, female condoms, diaphragms or cervical caps, and spermicides in various forms including gels, foam, cream, suppositories, or tablets. These various options range between 79% and 98% effectiveness in preventing pregnancy and may also help prevent STDs.

Fertility Awareness

Understanding your fertility pattern – knowing which days of the month that you are fertile, days when you are not fertile, and days when fertility is unlikely, but possible – is another way to avoid pregnancy. If you avoid sex on those days you are fertile, or use a barrier method during those days and the days when fertility is unlikely but possible, this form of birth control can be between 75% and 96% effective.

10.6 Abortion

Abortion is the intentional termination of a pregnancy after conception. It allows women to put an end to their pregnancies but involves killing the undeveloped embryo or fetus

Legal Definition of abortion

The termination of a pregnancy after, accompanied by, or closely followed by the death of the embryo or fetus especially : the medical procedure of inducing expulsion of a human fetus to terminate a pregnancy.The World Health Organization (WHO) **define abortion** as pregnancy termination prior to 20 weeks' gestation or a fetus born weighing less than 500 g.

What happens - Abortion

Abortions can only be carried out under the care of hospitals or licensed clinics.

You will not usually need to stay in the clinic or hospital overnight, but you may need to attend several appointments on different days.

Before an abortion

Before having an abortion, you'll need to have an assessment appointment. This may be at the hospital or clinic, or you may be offered an online appointment.During this assessment, you may:iscuss your reasons for considering an abortion and whether you're sure about your decisionbe offered the chance to talk things over with a trained counsellor if you think it might helptalk to a nurse or doctor about the abortion methods available, including any associated risks and complicationsdo a pregnancy test to confirm you're pregnant – an ultrasound scan may be done to check how many weeks pregnant you are be tested for sexually transmitted infections (STIs), your blood type and low iron levels (anaemia)be given antibiotics to reduce the risk of an infection developing after the abortionWhen you're sure you want to go ahead with the abortion, you'll be asked to sign a consent form and a date for the abortion will be arranged. You can change your mind at any point up to the start of the procedure.

Methods of abortion

There are 2 main types of abortion:

medical abortion (the "abortion pill") – taking medicine to end the pregnancy

surgical abortion – a minor procedure to remove the pregnancy

Abortion services are still open. You can self-refer by contacting an abortion provider directly.You may be able to have a medical abortion at home, without going to a hospital or clinic, if you're less than 10 weeks pregnant. If you're more than 10 weeks pregnant, an abortion provider can discuss your options with you.Medical and surgical abortions can generally only be carried out up to 24 weeks of pregnancy.

But in exceptional circumstances an abortion can take place after 24 weeks – for example, if there's a risk to life or there are problems with the baby's development. You should be offered a choice of which method you would prefer whenever possible.

Medical abortion

A medical abortion involves taking medicine to end the pregnancy. It does not require surgery or an anaesthetic and can be used at any stage of pregnancy.

It involves the following steps:

you first take a medicine called mifepristone – this stops the hormone that allows the pregnancy to continue; you'll be able to go home afterwards and continue your normal activitiesusually 24 to 48 hours later, you have another appointment where you take a second medicine called misoprostol – this will either be a tablet that you may swallow, let it dissolve under your tongue or between your cheek and gum, or put inside your vaginawithin 4 to 6 hours, the lining of the womb breaks down, causing bleeding and loss of the pregnancy – you may have to stay at the clinic while this happens, or you may be able to go homeIf a medical abortion is carried out after 9 weeks, you may need more doses of misoprostol and you're more likely to need to stay in the clinic or hospital. Occasionally, the pregnancy does not pass and a small operation is needed to remove it.

Surgical abortion

Surgical abortion involves having a procedure with local anaesthetic (where the area is numbed), conscious sedation (where you're relaxed but awake), or general anaesthetic (where you're asleep).

There are 2 methods.

Vacuum or suction aspiration

Can be used up to 15 weeks of pregnancy. It involves inserting a tube through the entrance to the womb (the cervix) and into your womb. The pregnancy is then removed using suction.Your cervix will be gently widened (dilated) first. A tablet may be placed inside your vagina or taken by mouth a few hours before to soften your cervix and make it easier to open.Pain relief is usually given using medicines that you take by mouth, and local anaesthetic (which is numbing medicine injected into

the cervix). You may also be offered some sedation, which is given by injection. A general anaesthetic is not usually needed.

Vacuum aspiration takes about 5 to 10 minutes and most women go home a few hours later.

Dilatation and evacuation (D&E)

Used from around 15 weeks of pregnancy. It involves inserting special instruments called forceps through the cervix and into the womb to remove the pregnancy.The cervix is gently dilated for several hours or up to a day before the surgery to allow the forceps to be inserted.D&E is carried out with conscious sedation or general anaesthetic. It normally takes about 10 to 20 minutes and you might be able to go home the same day.

After an abortion

If you have a medical abortion, you may experience short-lived side effects from the medicines, such as nausea and diarrhoea. General anaesthetic and conscious sedation medicines can also cause side effects.

For all types of abortion, it's likely you will experience some stomach cramps and vaginal bleeding too. These usually last a week or 2. Sometimes light vaginal bleeding after a medical abortion can last up to a month.

After an abortion, you can:

take ibuprofen to help with any pain or discomfortuse sanitary towels or pads rather than tampons until the bleeding has stoppedhave sex as soon as you feel ready, but use contraception if you want to avoid getting pregnant again as you'll usually be fertile immediately after an abortion

Get advice if you experience heavy bleeding, severe pain, smelly vaginal discharge, a fever or ongoing signs of pregnancy, such as nausea and sore breasts. The clinic will give you the number of a 24-hour helpline to call if you have concerns.

10.7 IUCD



Intra-uterine Contraceptive Device (IUCD)

1 min read

Top of Form

Intra-uterine Contraceptive Device (IUCD)

Oral Pills

Injectable Contraceptives

Intra-uterine Contraceptive Device (IUCD)

Male Condom

Female Condom

Diaphragm and Spermicidal Jelly

Spermicides

Female Sterilization

Male Sterilization (Vasectomy)

Periodic Abstinence

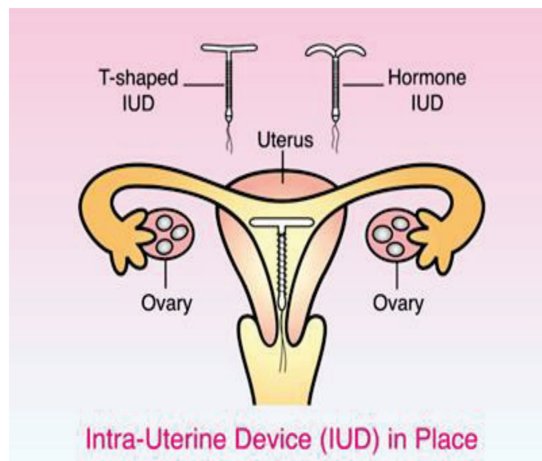
Emergency Contraception

Bottom of Form

The IUCD is a small device placed inside the uterus to prevent pregnancy. The commonly used IUCD are made of plastic wound with copper wire, often in the shape of a T. There are also other types made of plastic alone, stainless steel alone, or hormone-releasing models. Different IUCD need to be changed at different intervals of 4 to10 years. How exactly an IUCD prevents pregnancy is not known, but it is thought to interfere with sperm and egg migration and embryo implantation. It is an effective long-term birth control method and does not interfere with

love-making. If the IUCD is in place, the couple will not notice its presence. The woman can check whether the IUCD is in place by feeling for the device's thread in her vagina.

Insertion of the IUCD must be performed by a trained clinical professional, usually during the first 5 days of the woman's menses. If she has recently given birth, the IUCD can be inserted at 6-8 weeks during the post-natal check-up. After insertion, there may be slight bleeding and abdominal cramps or the IUCD may occasionally be expelled, hence it is important to return for check-up afterwards. Pelvic infection may get more severe in IUCD users and affect subsequent fertility. Therefore it is not an ideal choice of contraception for women with active infection or those who have multiple sexual partners. The IUCD may also cause heavier menstrual flow and cramps, but these usually subside after several months. If a woman develops heavy bleeding, abdominal pain, abnormal vaginal discharge or fever, she should consult a doctor. The IUCD can be easily removed when it is due for change or when pregnancy is desired.



Intra-Uterine Device (IUD) in Place

10.8 Let us sum up

Barrier contraceptives are broadly classified into two types: mechanical barriers and chemical barriers. Mechanical barriers are devices that provide a physical barrier between the sperm and the egg while chemical barriers are known as sperm-killing substances or spermicides.The male condom is the main barrier method for men. It is a sheath that fits over the penis. It works by creating a barrier between partners so that bodily fluids, such as semen and blood, are not shared.

Condoms can be very effective in preventing pregnancy and STDs when used consistently *and* correctly.

The most important message to tell your client is that the condom must be used from 'start to finish' with *every* act of intercourse to effectively prevent pregnancy and STIs.

One of the advantages of male condoms is that men of any age can use them, and using condoms enables a man to take responsibility for preventing pregnancy and diseases.

The disadvantage of using male condoms is that a man’s cooperation is needed for a woman to protect herself from pregnancy.

A female condom provides a barrier between partners to prevent sharing bodily fluids like semen and blood. This ensures that STIs are not passed on, and that pregnancy does not occur. It is also the only female-controlled device offering this protection.

The female condom is useful because, unlike the male condom, erection is not necessary to keep the condom in place.

The diaphragm is a small dome-shaped latex cup with a flexible ring that fits over the cervix. The cup acts as a physical barrier against the entry of sperm into the uterus. A diaphragm is usually used along with a spermicide.

Spermicides are sperm-killing substances which work by causing the membrane of sperm cells to break, killing them or slowing their movement. This keeps the sperm from meeting an egg.

10.9 Unit end exercise

Define abortion leally

Explain the types of abortion

10.10 Answer to check your progress.

Abortion

Abortion is the intentional termination of a pregnancy after conception. It allows women to put an end to their pregnancies but involves killing the undeveloped embryo or fetus

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10.11 Further readings

1. Bongaarts, J., and Potter, R.G. (1983): Fertility, Biology, and Behavior: An Analysis of the Proximate Determinants. Academic Press, New York.
2. Farley, T.M.M., and Belsey, E.M. (1988): The Prevalence and Aetiology of Infertility, Proceedings of the African Population Conference, International Union for the Scientific Study of Population (IUSSP), Dakar, 7-12 November.
3. Frank, O. (1987): IPPF Med. Bull., 21:6-8.
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UNIT-XI PERMANENT METHOD : VASECTOMY AND TUBECTOMY, ADVANTAGES AND DISADVANTAGES, MEDICAL TERMINATION PREGNANCY ACT.,

Structure

11.1 Introduction

VASECTOMY

Vasectomy is a permanent contraception or sterilisation. This page explains how the vasectomy works and tells you how to get one,

11.2 Objectives

After studying this unit you will be able to now

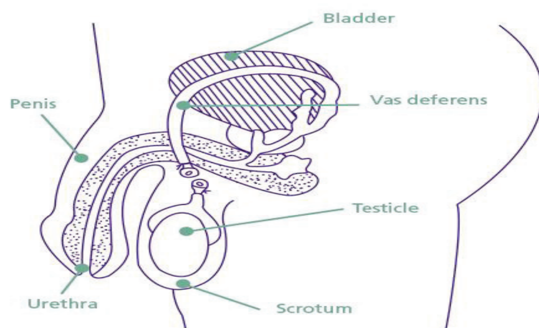
The concept of vasectomy and Tubectomy

The advantages and dis advantages of vasectomy and tubectomy

The medical pregnancy termination act

The various features of medical pregnancy termination act.

11.3 WHAT IS A VASECTOMY?



The vas deferens are cut and tied during a vasectomy. When you ejaculate (cum) the fluid or semen from your penis contains sperm. Sperm are made in your testicles (balls) and travel up your vas deferens (tubes) to mix with your semen. These are the tubes that are cut and tied when you have a vasectomy.After a vasectomy there are no sperm in your semen. Your testicles still make sperm but they are absorbed by your body.

WHERE IS IT DONE?

A vasectomy is a simple operation.It can be done at doctors' surgeries or hospitals. The doctor or a vasectomy counsellor will explain the operation and answer questions you or your partner may have.If you decide to go ahead, an appointment will be made for the operation.

HOW IS IT DONE?

In no-scalpel vasectomy the doctor feels the tubes under the skin and holds them in place with a small clamp. The doctor makes one tiny puncture with a special instrument. The same instrument is used to gently stretch the opening so the tubes can be reached.The tube is brought to the surface through the small opening. Different doctors use different techniques but all are designed to ensure the two ends of the cut tubes remain separate.The second tube is treated in the same way through the same hole. There is very little bleeding with this technique. No stitches are needed to close the opening, which heals quickly without leaving a scar.

HOW CAN I TAKE CARE OF MYSELF AFTER THE OPERATION?

You can expect some soreness and bruising for a few days.

Plan to stay home and rest.

Ask the doctor about pain relief.

You can probably return to light work after two days.

Avoid heavy lifting, exercise or sexual intercourse for seven to 10 days.

You can have sex after two to three days if it is comfortable but remember you still need contraception.

WHEN IS THE OPERATION EFFECTIVE?

If you are having penis in vagina sex, your partner will not be protected from pregnancy until two semen samples are sperm free.Your doctor will arrange the tests. They are done three months (or 16 ejaculations whichever comes first) after the vasectomy. Until then you will need to use another method of contraception

CAN IT AFFECT MY SEXUALITY?

After a vasectomy you will still have erections and orgasms. You ejaculate about the same amount of semen but it no longer contains sperm. Your hormones do not change. Your sex drive and ability to have sex do not change. The only change is that you cannot father a child. If you consider your decision carefully and do not feel pressured by anyone, you are unlikely to regret your choice.

IS THE OPERATION ALWAYS SUCCESSFUL?

Vasectomy is a very effective method of contraception. Overall, 1 in 300 may fail. After you have had two negative sperm counts the chance of failure drops to 1 in 2000.

IS A VASECTOMY REVERSIBLE?

It is not always possible to reverse a vasectomy. Many factors can affect the success rate of a reversal. On average, 50 percent of reversals result in a pregnancy. Sometimes a person can develop antibodies to their own sperm after a vasectomy. This may make pregnancy after reversal less likely. A second option after vasectomy is direct retrieval of sperm from the testicle, then in vitro fertilisation to achieve pregnancy. Another option is to freeze some of your sperm so they can be used later. If this is something you would like to consider, talk it over with your doctor or vasectomy counsellor before your operation.

WHAT ARE THE POSSIBLE COMPLICATIONS?

Infection is uncommon and is not usually serious. Internal bleeding may cause swelling and pain. A painful lump may form in the scrotum where the operation was done. The pain usually disappears in a few weeks. Intermittent long term scrotal pain is possible, but very rare.

ARE THERE ANY LONG TERM HEALTH RISKS?

Research shows no association between vasectomy, heart disease, or cancer of the testicles or prostate.

WHY SHOULD I CHOOSE VASECTOMY?

If you don’t want any, or any more, children or you have decided you cannot have any, or any more, children because of your mental or physical health, age or income, vasectomy is a simpler operation than

tubal ligation. Before having a vasectomy you should consider whether if one of your children died, you would want another, or if your present relationship ended, you would want to have a child with a new partner.

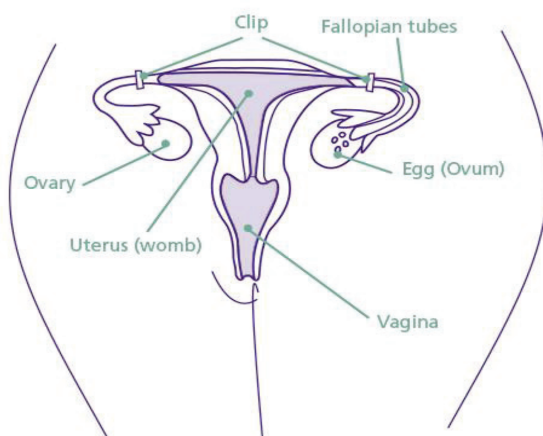
DO I NEED TO HAVE CONSENT FROM ANYONE?

It is recommended that you discuss sterilisation fully with your partner. This is because you are both affected by the decision.However, it is not a legal requirement for your partner to give consent. You can choose a vasectomy if you have no partner or if you have no children.

11.4 TUBAL LIGATION

Tubal ligation is permanent contraception or sterilisation. This page explains how this method works and how to get one.

WHAT IS TUBAL LIGATION?



Permanent contraception is called sterilisation.A tubal ligation is a procedure to cut or clip a woman's fallopian tubes. A tubal ligation is a procedure to close both fallopian tubes which means that sperm can't get to an egg to fertilise it.

HOW IS A TUBAL LIGATION DONE?

The tubes are closed using rings or clips or by cutting and tying. It is usually done by putting a tiny telescope called a laparoscope in through a small cut near the belly button and closing the tubes through another small cut near the pubic hair.If a laparoscope can't be used then a longer cut is made near the pubic hair. Tubal ligations are done in hospital under a general anaesthetic. Depending on the type of operation it may be day surgery or may require a stay of one to two days in hospital.

HOW EFFECTIVE IS TUBAL LIGATION?

The failure rate for tubal ligation is one in 200.

DOES FAMILY PLANNING DO TUBAL LIGATIONS?

We don't do tubal ligations at our clinics.Our nurses and doctors can refer you to a hospital or to a specialist who can perform the procedure. Talk to our staff if you think tubal ligation might be an option for you.

11, 6 THE MEDICAL TERMINATION OF PREGNANCY ACT, 1971 ACT NO. 34 OF 1971 [10th August, 1971.] An Act to provide for the termination of certain pregnancies by registered medical practitioners and for matters connected therewith or incidental thereto. BE it enacted by Parliament in the Twenty-second Year of the Republic of India as follows:—

1. Short title, extent and commencement.—

(1) This Act may be called the Medical Termination of Pregnancy Act, 1971.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force on such date1 as the Central Government may, by notification in the Official Gazette, appoint.

2. Definitions.—In this Act, unless the context otherwise requires,—

(a) "guardian" means a person having the care of the person of a minor or a 2[mentally ill person]; 3[(b) "mentally ill person" means a person who is in need of treatment by reason of any mental disorder other than mental retardation;] (c) "minor" means a person who, under the provisions of the Indian Majority Act, 1875 (9 of 1875), is to be deemed not to have attained his majority; (d) "registered medical practitioner" means a medical practitioner who possesses any recognised medical qualification as defined in clause (h) of section 2 of the Indian Medical Council Act, 1956 (102 of 1956), whose name has been entered in a State Medical Register and who has such experience or training in gynaecology and obstetrics as may be prescribed by rules made under this Act. 3. When pregnancies may be terminated by registered medical practitioners.—(1) Notwithstanding anything contained in the Indian Penal Code (45 of 1860), a registered medical practitioner shall not be guilty of any offence under that Code or under any other law for the time being in force, if any pregnancy is terminated by him in accordance with the provisions of this Act. (2) Subject to the provisions of sub-section (4), a pregnancy may be terminated by a registered medical practitioner,— (a) where the length of the pregnancy does not exceed twelve weeks, if such medical practitioner is, or (b) where the length of the pregnancy exceeds twelve weeks but does not exceed twenty weeks, if not less than two registered medical practitioners are, of opinion, formed in good faith, that— (i) the continuance of the pregnancy would involve a risk to the life of the pregnant woman or of grave injury to her physical or mental health; or (ii) there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped. Explanation I.—Where any pregnancy is alleged by the pregnant woman to have been caused by rape, the anguish caused by such

pregnancy shall be presumed to constitute a grave injury to the mental health of the pregnant woman.

Explanation II.—Where any pregnancy occurs as a result of failure of any device or method used by any married woman or her husband for the purpose of limiting the number of children, the anguish caused by such unwanted pregnancy may be presumed to constitute a grave injury to the mental health of the pregnant woman. (3) In determining whether the continuance of a pregnancy would involve such risk of injury to the health as is mentioned in sub-section (2), account may be taken of the pregnant woman's actual or reasonably foreseeable environment. (4) (a) No pregnancy of a woman, who has not attained the age of eighteen years, or, who, having attained the age of eighteen years, is a 1[mentally ill person], shall be terminated except with the consent in writing of her guardian. (b) Save as otherwise provided in clause (a), no pregnancy shall be terminated except with the consent of the pregnant woman. 2[4. Place where pregnancy may be terminated.—No termination of pregnancy shall be made in accordance with this Act at any place other than— (a) a hospital established or maintained by Government, or (b) a place for the time being approved for the purpose of this Act by Government or a District Level Committee constituted by that Government with the Chief Medical Officer or District Health Officer as the Chairperson of the said Committee: Provided that the District Level Committee shall consist of not less than three and not more than five members including the Chairperson, as the Government may specify from time to time.] 5. Sections 3 and 4 when not to apply.—(1) The provisions of section 4, and so much of the provisions of sub-section (2) of section 3 as relate to the length of the pregnancy and the opinion of not less than two registered medical practitioners, shall not apply to the termination of a pregnancy by a registered medical practitioner in a case where he is of opinion, formed in good faith, that the termination of such pregnancy is immediately necessary to save the life of the pregnant woman. 3[(2) Notwithstanding anything contained in the Indian Penal Code (45 of 1860), the termination of pregnancy by a person who is not a registered medical practitioner shall be an offence punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years under that Code, and that Code shall, to this extent, stand modified. (3) Whoever terminates any pregnancy in a place other than that mentioned in section 4, shall be punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years. (4) Any person being owner of a place which is not approved under clause (b) of section 4 shall be punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years. Explanation 1.—For the purposes of this section, the expression "owner" in relation to a place means any person who is the administrative head or otherwise responsible for the working or maintenance of a hospital or place, by whatever name called, where the pregnancy may be terminated under this Act. Explanation 2.—For the purposes of this section, so much of the provisions of clause (d) of section 2 as relate to the possession, by registered medical practitioner, of experience or training in gynaecology and obstetrics shall not apply.] 6. Power to make rules.—(1) The Central Government may, by notification in the Official Gazette, make rules to carry out the provisions of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:— (a) the experience or training, or both, which a registered medical practitioner shall have if he intends to terminate any pregnancy under this Act; and (b) such other matters as are required to be or may be, provided by rules made under this Act. (3) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made, before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or in two successive sessions, and if, before the expiry of the session in which it is so laid or the session immediately following, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule. 7. Power to make regulations.—(1) The State Government may, by regulations,— (a) require any such opinion as is referred to in sub-section (2) of section 3 to be certified by a registered medical practitioner or practitioners concerned, in such form and at such time as may be specified in such regulations, and the preservation or disposal of such certificates; (b) require any registered medical practitioner, who terminates a pregnancy, to give intimation of such termination and such other information relating to the termination as may be specified in such regulations; (c) prohibit the disclosure, except to such persons and for such purposes as may be specified in such regulations, of intimations given or information furnished in pursuance of such regulations. (2) The intimation given and the information furnished in pursuance of regulations made by virtue of clause (b) of sub-section (1) shall be given or furnished, as the case may be, to the Chief Medical Officer of the State. 1[(2A) Every regulation made by the State Government under this Act shall be laid, as soon as may be after it is made, before the State Legislature.] (3) Any person who wilfully contravenes or wilfully fails to comply with the requirements of any regulation made under sub-section (1) shall be liable to be punished with fine which may extend to one thousand rupees. 8. Protection of action taken in good faith.—No suit or other legal proceeding shall lie against any registered medical practitioner for any damage caused or likely to be caused by anything which is in good faith done or intended to be done under this Act.

What is the Need for the Amendment?

Currently, women seeking to terminate the pregnancy beyond 20 weeks have to face the cumbersome legal recourse. This denies the reproductive rights of women (as abortion is considered an important aspect of the reproductive health of women).Obstetricians argue that this has also spurred a cottage industry (kind of informal industry) of places providing unsafe abortion services, even leading to the death of the mother. As a result, a 2015 study in the India Journal of Medical Ethics noted that 10-13% of maternal deaths in India are due to unsafe abortions. This makes unsafe abortions to be the third-highest cause of maternal deaths in India.

According to Section 3 (2) of the MTP Act, 1971 a pregnancy may be terminated by a registered medical practitioner: Where the length of the pregnancy does not exceed twelve weeks, or Where the length of the pregnancy exceeds twelve weeks but does not exceed twenty weeks. In this case, the abortion will take place, if not less than two registered medical practitioners are of opinion, that the continuance of the pregnancy would involve a risk to the life of the pregnant woman (her physical or mental health); or there is a substantial risk that if the child were born, it would suffer from some physical or mental abnormalities to be seriously handicapped. This delays the decision-making process for termination of pregnancy.

One of the criticisms of the MTP Act, 1971 was that it failed to keep pace with advances in medical technology that allow for the removal of a foetus at a relatively advanced state of pregnancy. The original law states that, if a minor wants to terminate her pregnancy, written consent from the guardian is required. The proposed law has excluded this provision. Thereby, the extension of limit would ease the process for these women, allowing the mainstream system itself to take care of them, delivering quality medical attention.

Proposed Features of the Bill

The Bill seeks to amend Medical Termination of Pregnancy (MTP) Act, 1971.The Bill proposes the requirement of the opinion of one registered medical practitioner (instead of two or more) for termination of pregnancy up to 20 weeks of gestation (foetal development period from the time of conception un birth).

It introduces the requirement of the opinion of two registered medical practitioners for termination of pregnancy of 20-24 weeks of gestation. It has also enhanced the gestation limit for ‘special categories’ of women which includes survivors of rape, victims of incest and other vulnerable women like differently-abled women and minors. It also states that the “name and other particulars of a woman whose pregnancy has been terminated shall not be revealed”, except to a person authorised in any law that is currently in force.

Note: Before 1971, abortion was criminalized under Section 312 of the Indian Penal Code, 1860, describing it as intentionally 'causing miscarriage'.

Intended Benefits of this Extension

A number of foetus abnormalities are detected after the 20th week, often turning a wanted pregnancy into an unwanted one. Usually, the foetal anomaly scan is done during the 20th-21st week of pregnancy. If there is a delay in doing this scan, and it reveals a lethal anomaly in the foetus, 20 weeks period is limiting. This extension would allow termination of pregnancy in cases where some anomaly in the foetus is reported after 20 weeks.

The law will help the rape victims, ill and under-age women to terminate the unwanted pregnancy lawfully. Significantly, the Bill also applies to unmarried women and therefore, relaxes one of the regressive clauses of

the 1971 Act, i.e., single women couldn't cite contraceptive failure as a reason for seeking an abortion.
Allowing unmarried women to medically terminate pregnancies and a provision to protect the privacy of the person seeking an abortion will bestow reproductive rights to the women.

Issues Related to the Extension

A key aspect of the legality governing abortions has always been the 'viability' of the foetus. Viability implies the period from which a foetus is capable of living outside the womb. As technology improves, with infrastructure up-gradation, and with skilful professionals driving medical care, this 'viability' naturally improves. Currently, viability is usually placed at about seven months (28 weeks) but may occur earlier, even at 24 weeks. Thus, late termination of pregnancy may get in conflict with the viability of the foetus. The preference for a male child keeps sex determination centres in business in spite of their illegal status. There are concerns that a more liberal abortion law can aggravate this state-of-affairs. According to 2017 data, 59 countries allowed elective abortions, of which **only seven permitted the procedure after 20 weeks** like Canada, China, the Netherlands, North Korea, Singapore, the United States, and Vietnam.

11. 6Let us sum up

Though Medical Termination of Pregnancy (Amendment) Bill, 2020 is a step in the right direction, the government needs to ensure that all norms and standardised protocols in clinical practice to facilitate abortions are followed in health care institutions across the country. Along with that, the question of abortion needs to be decided on the basis of human rights, the principles of solid science, and in step with advancements in technology.

11. 7 Unit end exercise

Brief vasectomy and its methods

Examine medical pregnancy termination act

11. 8Answer to check your progress.

The vas deferens are cut and tied during a vasectomy. When you ejaculate (cum) the fluid or semen from your penis contains sperm. Sperm are made in your testicles (balls) and travel up your vas deferens (tubes) to mix with your semen. These are the tubes that are cut and tied when you have a vasectomy.After a vasectomy there are no sperm in your semen. Your testicles still make sperm but they are absorbed by your body.

WHERE IS IT DONE?

A vasectomy is a simple operation.It can be done at doctors' surgeries or hospitals. The doctor or a vasectomy counsellor will explain the

operation and answer questions you or your partner may have.If you decide to go ahead, an appointment will be made for the operation.

HOW IS IT DONE?

In no-scalpel vasectomy the doctor feels the tubes under the skin and holds them in place with a small clamp. The doctor makes one tiny puncture with a special instrument. The same instrument is used to gently stretch the opening so the tubes can be reached.The tube is brought to the surface through the small opening. Different doctors use different techniques but all are designed to ensure the two ends of the cut tubes remain separate.The second tube is treated in the same way through the same hole. There is very little bleeding with this technique. No stitches are needed to close the opening, which heals quickly without leaving a scar.

HOW CAN I TAKE CARE OF MYSELF AFTER THE OPERATION?

You can expect some soreness and bruising for a few days.

Plan to stay home and rest.

Ask the doctor about pain relief.

You can probably return to light work after two days.

Avoid heavy lifting, exercise or sexual intercourse for seven to 10 days.

You can have sex after two to three days if it is comfortable but remember you still need contraception.

WHEN IS THE OPERATION EFFECTIVE?

If you are having penis in vagina sex, your partner will not be protected from pregnancy until two semen samples are sperm free.Your doctor will arrange the tests. They are done three months (or 16 ejaculations whichever comes first) after the vasectomy. Until then you will need to use another method of contraception

CAN IT AFFECT MY SEXUALITY?

After a vasectomy you will still have erections and orgasms. You ejaculate about the same amount of semen but it no longer contains sperm. Your hormones do not change. Your sex drive and ability to have sex do not change. The only change is that you cannot father a child. If you consider your decision carefully and do not feel pressured by anyone, you are unlikely to regret your choice.

THE MEDICAL TERMINATION OF PREGNANCY ACT, 1971 ACT NO. 34 OF 1971 [10th August, 1971.] An Act to provide for the termination of certain pregnancies by registered medical practitioners and for matters connected therewith or incidental thereto. BE it enacted by Parliament in the Twenty-second Year of the Republic of India as follows:—

1. Short title, extent and commencement.—

(1) This Act may be called the Medical Termination of Pregnancy Act, 1971.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force on such date1 as the Central Government may, by notification in the Official Gazette, appoint.

2. Definitions.—In this Act, unless the context otherwise requires,—

(a) "guardian" means a person having the care of the person of a minor or a 2[mentally ill person]; 3[(b) "mentally ill person" means a person who is in need of treatment by reason of any mental disorder other than mental retardation;] (c) "minor" means a person who, under the provisions of the Indian Majority Act, 1875 (9 of 1875), is to be deemed not to have attained his majority; (d) "registered medical practitioner" means a medical practitioner who possesses any recognised medical qualification as defined in clause (h) of section 2 of the Indian Medical Council Act, 1956 (102 of 1956), whose name has been entered in a State Medical Register and who has such experience or training in gynaecology and obstetrics as may be prescribed by rules made under this Act. 3. When pregnancies may be terminated by registered medical practitioners.—(1) Notwithstanding anything contained in the Indian Penal Code (45 of 1860), a registered medical practitioner shall not be guilty of any offence under that Code or under any other law for the time being in force, if any pregnancy is terminated by him in accordance with the provisions of this Act. (2) Subject to the provisions of sub-section (4), a pregnancy may be terminated by a registered medical practitioner,— (a) where the length of the pregnancy does not exceed twelve weeks, if such medical practitioner is, or (b) where the length of the pregnancy exceeds twelve weeks but does not exceed twenty weeks, if not less than two registered medical practitioners are, of opinion, formed in good faith, that— (i) the continuance of the pregnancy would involve a risk to the life of the pregnant woman or of grave injury to her physical or mental health; or (ii) there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped. Explanation I.—Where any pregnancy is alleged by the pregnant woman to have been caused by rape, the anguish caused by such pregnancy shall be presumed to constitute a grave injury to the mental health of the pregnant woman.

Explanation II.—Where any pregnancy occurs as a result of failure of any device or method used by any married woman or her husband for the purpose of limiting the number of children, the anguish caused by such unwanted pregnancy may be presumed to constitute a grave injury to the mental health of the pregnant woman. (3) In determining whether the continuance of a pregnancy would involve such risk of injury to the health as is mentioned in sub-section (2), account may be taken of the pregnant woman's actual or reasonably foreseeable environment. (4) (a) No pregnancy of a woman, who has not attained the age of eighteen years, or, who, having attained the age of eighteen years, is a 1[mentally ill person], shall be terminated except with the consent in writing of her

guardian. (b) Save as otherwise provided in clause (a), no pregnancy shall be terminated except with the consent of the pregnant woman. 2[4. Place where pregnancy may be terminated.—No termination of pregnancy shall be made in accordance with this Act at any place other than— (a) a hospital established or maintained by Government, or (b) a place for the time being approved for the purpose of this Act by Government or a District Level Committee constituted by that Government with the Chief Medical Officer or District Health Officer as the Chairperson of the said Committee: Provided that the District Level Committee shall consist of not less than three and not more than five members including the Chairperson, as the Government may specify from time to time.] 5. Sections 3 and 4 when not to apply.—(1) The provisions of section 4, and so much of the provisions of sub-section (2) of section 3 as relate to the length of the pregnancy and the opinion of not less than two registered medical practitioners, shall not apply to the termination of a pregnancy by a registered medical practitioner in a case where he is of opinion, formed in good faith, that the termination of such pregnancy is immediately necessary to save the life of the pregnant woman. 3[(2) Notwithstanding anything contained in the Indian Penal Code (45 of 1860), the termination of pregnancy by a person who is not a registered medical practitioner shall be an offence punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years under that Code, and that Code shall, to this extent, stand modified. (3) Whoever terminates any pregnancy in a place other than that mentioned in section 4, shall be punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years. (4) Any person being owner of a place which is not approved under clause (b) of section 4 shall be punishable with rigorous imprisonment for a term which shall not be less than two years but which may extend to seven years. Explanation 1.—For the purposes of this section, the expression “owner” in relation to a place means any person who is the administrative head or otherwise responsible for the working or maintenance of a hospital or place, by whatever name called, where the pregnancy may be terminated under this Act. Explanation 2.—For the purposes of this section, so much of the provisions of clause (d) of section 2 as relate to the possession, by registered medical practitioner, of experience or training in gynaecology and obstetrics shall not apply.] 6. Power to make rules.—(1) The Central Government may, by notification in the Official Gazette, make rules to carry out the provisions of this Act.

11. 9 Further Readings

Agarwala, S.N., India‟s Population Problem, Tata Mc Graw Hill, Bombay.

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UNIT XII APPROACHES TO FAMILY WELFARE PLANNING: WELFARE APPROACH, CLINICAL, EXTENSION AND EDUCATIONAL APPROACH AND CAFETERIA APPROACH

Structure

12.1 Introduction

As mentioned earlier, India entered the second stage of demographic transition around 1921 after which its population started growing at rate more than 1 percent a year. Nehru wrote extensively on falling birth and death rates in the West in Discovery of India and was a strong supporter of family planning programme. National Planning Committee of the Indian National Congress supported promotion of family planning as a state policy strongly. This explains how afterindependence, the Government of India recognized the vital role of population control in the overall development of national economy and in 1952 India became the first country of the world to launch an official family planning programme. Unrestricted population growth was viewed as a serious threat to all national developmental efforts. Over the years the planners have followed different approaches towards promoting family planning among the masses. These approaches are broadly grouped into Gandhian approach, clinical approach, extension approach, cafeteria approach, coercion and rights based approach. While we started cautiously with Gandhian approach, after various experiments in this area, we have settled with a demand driven, rights based approach in which greater role is assigned to education, empowerment and meeting the unmet needs rather than attaining family planning targets This module presents the three major policy statements issued by successive governments: a statement by Dr. Karan Singh in 1976, a statement by Janata party government in 1977, and the National Population Policy 2000 statement.

12.2 Objectives

After studying this unit you will be able to understand

The various approach of family welfare

The concept of health and family welfare

Mass vasectomy prorame

The concept of mass media on family planning

The impact of mass media on family planning

GANDHIAN APPROACH

Initially, the dominant thinking among the family planning experts in this period was Gandhian. They held the view that abstinence or "the rhythm method" was the most suitable method in Indian programme, and the artificial methods of birth control were not only unpracticable, they were likely to be misused and result in moral degradation. Rajkumari Amrit Kaur, who was the Union Minister of Health at that time was a devoted disciple of Gandhi. Thus a beginning was made with the natural methods of family planning – rhythm and withdrawal.

12.3 CLINICAL APPROACH

With the Gandhian understanding of population control, clinical approach was followed. This approach included the natural methods of family planning and clinical methods. An allocation of Rs. 65.00 lakh was made for family planning in the budget of the First Five Year Plan (1951-56) and a number of family planning clinics were established in the country to provide services to needy people. The same approach was further extended in the Second Five Year Plan period !1956-61). The budget allocation was raised to Rs. 497.00 lakh and organizational structures were developed at the national and state levels. Posts of State Family Planning Officers werecreated in the States, and a Director of Family Planning at the Centre was appointed.

. The main causes behind the failure of the clinical approach were: female bias; jack of general motivation; cultural obstacles and ignorance. Opening of a large number of birth control clinics at that time before educating the people and raising their level of consciousness was like putting the cart before the horse.

Females who constituted the target population in the programme did not enjoy the same (equal) status in the family as in the West and the Westernized Indian planners did not see that in India family planning movement could not get momentum without men's support.

12.4 EXTENSION EDUCATION APPROACH

A large number of knowledge, Attitude, and Practice (KAP) surveys were conducted in the first two Plan periods to help the planners to gather data

on knowledge of family planning methods, attitude towards them and practices. The rising rather than falling growth rate of population created a panic among the planners. Thus the Third Five Year Plan stressed the role of "intensive education, provision of facilities and advice on the largest scale possible and widespread popular effort in every rural and urban community" as a matter of the greatest significance. This paved the way for extension education approach. Under the new approach the main burden of the programme was to educate the masses by appointing an army of extension educators or change agents.

MASS VASECTOMY APPROACH AND THE USE OF COERCION

In 1965 Intra Uterine Contraceptive Device (IUCD) was introduced in the programme which produced good results initially but gradually the number of acceptors of IUCD started declining. Bleeding and rumours were the main reasons behind its failure. Then during 1972-74 mass vasectomy camps were organized in different parts of the country and the incentive schemes whereby the couples were given incentive in cash and kind for adopting sterilization was adopted. A large number of males were sterilized in them. At some places the approach appeared to be quite successful in attracting couples to family planning as it used incentives as well as group approach to family planning. However, the family planning programme failed to make headway and affect the figures of growth rate of population.

There were several reasons: patriarchy because of which males were unwilling to bear the burden of family planning; rumours; failure of method in some cases; and fraudulent means to motivate people to adopt family planning. Family planning programme was given utmost importance during the Emergency time when the acceptors were drawn by a technique which was quite contrary to the basic philosophy of the extension approach.

Use of coercion augmented the family planning achievements in all the states in India; and some states which were always behind the target, in fact, exceeded the targets. There was a talk of making sterilization compulsory after three children and some States had even passed legislation to this effect. Population growth was viewed as a national problem of urgency and the whole bureaucratic infrastructure was used to assist in the programme.

The number of sterilizations increased to 2,669,000 in 1975-76, from only 942,000 in 1973-74, and further to 8,261,000 in 1976-77. At this stage two phenomena were marked: (a) the family planning programme degenerated into sterilization programme; and (b) population control became a political problem.

12.5 CAFETERIA APPROACH

In the Third Plan period itself (1961-66) family planning was made a target oriented

programme. It was proposed to reduce the birth rate in India to 25 births per 1000 population by 1973. The target was later modified to reduce

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birth rate to 25 as early as possible. A cafeteria approach was then adopted to provide a range of effective and approved family planning methods according to needs and preferences of the individuals, e.g., condoms, diaphragms, jelly, cream, foam tablets for newly married couples, IUCD for couples with one or two children, and sterilization for couples who have completed their desired family size.

By 1980 the term "cafeteria approach" became a buzzword in family planning programme and the influence of this approach continued. It may also be said that while we have more catchphrases in family planning today, the idea that the needy couples must be informed about all the methods of family planning and all methods of family planning must be accessible to them, so that they can practice one according to their own considerations continues. Broadly speaking, the different family planning methods are divided into two categories: terminal methods; and spacing methods. The former methods refer to methods which are used when couples have completed their desired family size and do not want to produce more children; they may go for male or female sterilization. The latter methods refer to those methods which are used to create gap between successive childbirths. For example, a young couple may produce a baby quickly after marriage but may like to have another child after four-five years. Then they may use condoms or IUCD. When they want a child they may discontinue the method and plan a baby. Under cafeteria approach it was thought that we should motivate younger couples to go for delayed childbirth and use spacing methods rather than focus on aged couples and motivate them to go for sterilization. In the context of high and natural fertility, the fertility impact of terminal methods may be much more than that of terminal methods.

The basic idea behind cafeteria approaches still continues. It recognizes that different people have different needs, based on their religion, age, family size preferences, economic conditions and many other factors. The state policy should be to provide a method of their choice and not insist on any one method. Ironically, most users of family planning have gone for female sterilization. This is a situation that has not changed till now. This works against the policy of cafeteria approach and depicts male domination in society.

The Time Line of Family Planning Policy in India

Before independence

Factors behind general support for population control among the elite

• Lack of awareness among common people

• Arguments in favour of population policy among the political and intellectual elites

• Isolated efforts to establish clinics and inform people

• Strong support for population control by Gandhi and Nehru despite difference in understanding of population dynamics and approaches to means of birth control

Family planning starts with Gandhian approach

• State sponsored family planning programme started • Gandhian approach with abstinence and rhythm as the main methods 1950-60 Clinical approach

• Economic models suggesting a negative relationship between population growth and development

• Estimation of demographic rates and ratios

• Knowledge, attitude and practice (KAP) studies

• Research in reproduction

• Clinical approach 1960-70 Extension approach and experimentations

• Extension programme • IUCD programme

• Target orientation (Third Five Year Plan) • Organizational changes 1970-80 Camp approach • The concept of sustainable development • Mass vasectomy camps • National level studies in family planning • First population policy statement announced • Policy under Janata Govt. asserting voluntarism 1980-90 Cafeteria approach • Cafeteria approach and emphasis on limitation of family size rather than on contraception • Planning in terms of NRR (with the goal of achieving NRR of unity by 1996) 1990-2000 Target free approach • Collection of detailed national and regional level data on population, development and well-being • Abolition of targets • Shift from national to area specific approach 2000-National Population Policy 2000 • National Population Policy • Unmet needs concept • A rights based approach • HIV/AIDS • Participatory approach .

12.6 Let us sum up

There were several reasons: patriarchy because of which males were unwilling to bear the burden of family planning; rumours; failure of method in some cases; and fraudulent means to motivate people to adopt family planning. Family planning programme was given utmost importance during the Emergency time when the acceptors were drawn by a technique which was quite contrary to the basic philosophy of the extension approach. Use of coercion augmented the family planning achievements in all the states in India; and some states which were always behind the target, in fact, exceeded the targets. There was a talk of making sterilization compulsory after three children and some States had even passed legislation to this effect. Population growth was viewed as a national problem of urgency and the whole bureaucratic infrastructure was used to assist in the programme.

12.7 Unit end exercise

Brief note on Ganthian approach

Write a short note on clinical approach

NOTES

12.8 Answer to check your progress

GANDHIAN APPROACH

Initially, the dominant thinking among the family planning experts in this period was Gandhian. They held the view that abstinence or "the rhythm method" was the most suitable method in Indian programme, and the artificial methods of birth control were not only unpracticable, they were likely to be misused and result in moral degradation. Rajkumari Amrit Kaur, who was the Union Minister of Health at that time was a devoted disciple of Gandhi. Thus a beginning was made with the natural methods of family planning – rhythm and withdrawal.

CLINICAL APPROACH

With the Gandhian understanding of population control, clinical approach was followed. This approach included the natural methods of family planning and clinical methods. An allocation of Rs. 65.00 lakh was made for family planning in the budget of the First Five Year Plan (1951-56) and a number of family planning clinics were established in the country to provide services to needy people. The same approach was further extended in the Second Five Year Plan period !1956-61). The budget allocation was raised to Rs. 497.00 lakh and organizational structures were developed at the national and state levels.

12.9 Further Readings

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UNIT-XIII FAMILY PLANNING PROGRAMME IN INDIA

Structure

13.1 Introduction

The Indian family planning programme is often dismissed as a 'failure'. But in my view this is an unjust and rather too simple characterisation. Among other things, the programme's properevaluation would need to take account of:

(i) the sheer size and complexity of the task which it has had to tackle, namely reducing the birth rate in a huge, poor, poorly educated, and largely rural population (ii) the aforementioned fact that in many respects India has been a pioneer; this is most commonly illustrated by the statement that it was the first country in the world to announce an official family planning programme (in 1952). But actually India has led the world in many other ways too (e.g. in the development of several methods of sterilisation). The main point I am making, however, is that it is particularly difficult to be a pioneer, and that pioneers inevitably tend to make more mistakes than those who follow and, (iii) the fact that in the past some politicians have shied away from their duty of ensuring that Indian women, and men, have a real 'right to choose'. By this I mean their responsibility of making sure that everyone has access to safe, effective and affordable methods of contraception. Indeed there are still significant parts of the country where this 'right to choose' needs to be expanded. But this requires political backing and greater resources. Of course, India's family planning programme has had its failings. For example, it has been much too 'target-bound', and for much too long it has badly neglected the promotion of reversible forms of contraception (today about eighty percent of all married women who are currently using a modern method of contraception are relying upon sterilisation (i.e. tubectomy)). Nevertheless, despite its problems, there can be little doubt that the Indian birth rate would be somewhat higher today, and the country's

population would be larger still, if the family planning programme had not existed.

13.2 Objectives

After studying this you will be able learn

The concept of family welfare

The objectives and importance of family welfare

The concept of mass media communication

The impact of mass media communication on family welfare,

13.3 Meaning

Family planning means planning by individuals or couples to have only the children they want, when they want them. This is responsible parenthood.

®family welfare includes not only planning of births ,but they welfare of whole family by means of total family health care. The family welfare programme has high priority in India, because its success depends upon the quality of life of all citizen.

13.4 HISTORY OF FAMILY WELFARE PROGRAMME

1. It was started in the year 1951.

2. In 1977,the govt. of India redesignated the “national family planning programme” as the “national family welfare programme”, and also changed the name of the ministry of health and family planning to ministry of health and family welfare.

3. It is a reflection of the government’s anxiety to promote family planning through the total welfare of the family.

It is aimed at achieving a higher end, i.e., to improve the quality of life of the people.

5. India is the first country in the world, that implemented the family welfare programme at govt. level.

6. Health is a part of concurrent list but center provides 100% assistance to states for this programme.

7. Government has concentrated on this programme in various five-year plans though higher priority was accorded to it after 4th five year plan.

8. Due to bad effects of emergency and faulty propaganda, family planning suffered major set back, during 1977- 1979.

9. It was decided in national health policy 1983,that Net Reproduction Rate (NRR) should be 1 by the year 2000.

10. The 7th five year plan placed more emphasis on the use of spacing methods between the births of two children.

11. Family welfare programme has been remained the important aspects of each five year plan, national health

13.5 CONCEPT OF FAMILY WELFARE PROGRAMME

1. The concept of welfare is basically related to quality of life.

2. As such it includes education, nutrition, health, employment, women's welfare and rights ,shelter, safe drinking water-all vital factors associated with the concept of welfare.

It is a Centrally sponsored programme. For this, the states receive 100 per cent assistance from Central Government.

The emphasis is on a child family.

® Also, the emphasis is on spacing methods along with terminal methods,

® The current policy is to promote family planning on the basis of voluntary and informed acceptance with full community participation.

® The services are taken to every doorstep in order to motivate families to accept the small family norm

Aims and objectives of family welfare programme The government of india in the ministry of health and family welfare have started the operational aims, and objectives of family welfare programme as follows:

To promote the adoption of small family size norm, on the basis of voluntary acceptance.

®To promote the use of spacing methods.

® To ensure adequate supply of contraceptives to all eligible couples within easy reach.

To arrange for clinical and surgical services so as to achieve the set targets

®Participation of voluntary organizations/local leaders/local self government, in family welfare programme at various levels

®Using the means of mass communication and interpersonal communication to overcome the social and cultural hindrances in adopting the programme or extensive use of public health education for family planning.

GOALS OF THE FAMILY WELFARE PROGRAMME

® Family welfare programme has laid down the following long term goals to be achieved by the year 2000 AD:

1.Reduction of birth rate from 29 per 1000 (in 1992) to 21 by 2000 AD

2.Reduction of death rate from 10 (in 1992) to 9 per 1000.

3.Raising couple protection rate from 43.3 (in 1990) to 60 per cent.

4.Reduction in average family size from 4.2 (in 1990) to 2.3.

5.Decrease in Infant mortality rate from 79 (in 1992) to less than 60 per 1000 live births. 6.Reduction of Net Reproduction Rate from 1.48 (in 1981) to 1.

IMPACT OF FAMILY WELFARE ACTIVITIES

1. Nearly 98% of women and 99% of men in the age group of 15 and 49 have a good knowledge about one or more methods of contraception. Adolescents seem to be well aware of the modern methods of contraception. 2. Over 97% of women and 95% of men are knowledgeable about female sterilization, which is the most popular modern permanent method of family planning. While only 79% of women and 80% of men have heard about male sterilization. 3. 93% of men have awareness about the usage of condoms while only 74% of women are aware of the same. 4. Around 80% of men and women have a fair knowledge about contraceptive pills.

IMPORTANCE OF FAMILY WELFARE PROGRAMME

® The year 2010-11 ended with 34.9 million family planning acceptors at national level comprising of 5.0 million Sterilizations, 5.6 million IUD insertions, 16.0 million condom users and 8.3 million O.P (oral pills). users as against 35.6 million family planning acceptors in 2009-10.

® Over the decades, there has been a substantial increase in contraceptive use in India. ® IUD Insertions: During the year 2010-11, 5.6 million IUD insertions were reported as against 5.7 million in 2009-10. Assam, Bihar, Gujarat, Jharkhand, Uttar Pradesh, Arunachal Pradesh, Delhi, Goa, Meghalaya, Mizoram, Sikkim, D&N Haveli reported better performance in 2010-11

Condom Users and O.P. (Oral Pills) Users: Based on the distribution figures reported, there were 16.0 million equivalent users of Condoms and 83.07 million equivalent users of Oral Pills during 2010-11.

® Number of Births Prevented: Implementation of various Family Planning measures prevented 16.335 million births in the country during 2010-11 as compared to 16.605 million in 2009-10. The cumulative total of births avoided in the country up to 2010-11 was 442.75 million.

STRATEGIES OF FAMILY WELFARE PROGRAMME (FWP) ® Integration with health services: Family welfare programme (FWP) has been integrated with other health services instead of being a separate service. ® Integration with maternity and child health: FWP has been integrated with maternity and child health (MCH). Public are motivated for post delivery sterilization, abortion and use of contraceptives. ® Concentration in rural areas: FWP are concentrated more in rural areas at

the level of subentries and primary health centers. This is in addition to hospitals at district, state and central levels.

Literacy: There is a direct correlation between illiteracy and fertility. So stress and priority is given for girl's education. Fertility rate among educated females is low. ® Breast feeding: Breast feeding is encouraged. It is estimated that about 5 million births per annum can be prevented through breast feeding. ®Raising the age for marriage: Under the child marriage restraint bill (1978), the age of marriage has been raised to 21 years for males and 18 years for females. This has some impact on fertility

Minimum needs programme: It was launched in the Fifth Five Year Plan with an aim to raise the economical standards. Fertility is low in higher income groups. So fertility rate can be lowered by increasing economical standards. ® Incentives: Monetary incentives have been given in family planning programmes, especially for poor classes. But these incentives have not been very effective. So the programme must be on voluntary basis. ® Mass media: Motivation through radio, television, cinemas, news papers, puppet shows and folk dances is an important aspect of this programme.

13 6 MASS MEDIA COMMUNICATION IN FAMILY PLANNING

Family is the oldest institution which has helped humankind to survive all these centuries. It is united by the ties of marriage, where the members interact and communicate with each other in their respective roles of husband and wife, mother and father, sons and daughters, etc. It provides an environment of love, belonging and security to its members, which guarantees them marital peace, fulfillment and growth. But today, the scenario is fast changing and the family is being threatened by many factors. In the current social scenario, marital relationships are under increasing strain and becoming complex and demanding more. There are growing instances of divorce, marital discord, demand for dowry, bride burning, violation of women's dignity, abandonment, neglect of intergenerational care, and so on.

II. Family - The Changing Scenario Family, being an ancient institution, helped the sustenance of mankind in all their hardships and sufferings. Family provides the nurturing environment of love, belongingness and security which guarantees that the members will have a harmonious life, peace, fulfillment and growth. However, it does not mean that there would be no differences or provocations or quarrels about minor matters among the members of the family. Such quarrels have always existed between siblings, between parents and children or between husband and wife. But today, the situation is fast changing and the family, a very precious unit of the society, is being threatened by many extraneous factors. The marital relationship is under increasing strain. As the years roll on, it is becoming complex and more and more demanding. Present-day women are more educated and more economically independent and they contribute substantially to the workplace and the family. Yet, they are more vulnerable to violence today than before, due to various factors, particularly when violence is perpetrated by their own family members where the safety and security of the so-called home is taken away by

those whom they trusted. In fact, violence against women is a global epidemic that kills, brutalizes, and harms women physically, psychologically, sexually and economically. It is one of the most persistent forms of human rights violation that denies women equality, security, dignity, self-worth and freedom.

Mass communication on health & family welfare

The simplest definition of mass communication is “public communication transmitted electronically or mechanically.” In this way messages are transmitted or sent to large, perhaps millions or billions of people spread across the world, internet and mobile, are often called collectively as digital media & radio and TV, as broadcast media.

Health care or healthcare is the maintenance or improvement of health via the diagnosis, treatment, and prevention of disease, illness, injury, and other physical and mental impairments in human beings. Healthcare is delivered by health professionals (providers or practitioners) in allied health professions, chiropractic, physicians, physician associates, dentistry, midwifery, nursing, medicine, optometry, pharmacy, psychology, and other health professions. It includes the work done in providing primary care, secondary care, and tertiary care, as well as in public health.

Family welfare

The Ministry of Health and Family Welfare is an Indian government ministry charged with health policy in India.

 It is also responsible for all government programs relating to family planning in India.

 It consists child and women.

 The Minister of Health and Family Welfare holds cabinet rank as a member of the Council of Ministers.

The wide reach offered by mass media is phenomenal. It can target a global audience. • In terms of newspapers and magazines, it can reach a specified target group. Besides, it is easily accessible. • Certain types of media have a loyal fan following. • This would mean that an advertiser, publication or news channel would have a ready audience. We have the latest news and information at the click of the mouse! The Internet is such a medium that it can give many options for the kind of information required. • Television, movies, Internet and the radio are some of the best forms of entertainment. • It can be used for health care and family welfare purposes in an effective manner. Pulse Polio An immunization campaign established by the government of India in 1995-96 to eradicate poliomyelitis (polio) in India by vaccinating all children under the age of five years against polio virus. In India, vaccination against Polio started in 1978 with Expanded Program in Immunization (EPI). By 1984, it was successful in covering around 40% of all infants, giving 3 doses of OPV to each. In 1995, following the Polio Eradication Initiative of World Health Organization (1988), India launched Pulse Polio Immunization

Program along with Universal Immunization Program which aimed at 100% coverage.

E-HEALTH □ TELEMEDICINE □ MEDICAL TOURISM □ MEDICAL INFORMATICS

e-Health□ eHealth (also written e-health) is a relatively recent term for healthcare practice supported by electronic processes and communication, dating back to at least 1999. □ Usage of the term varies: some would argue it is interchangeable with health informatics with a broad definition covering electronic/digital processes in health while others use it in the narrower sense of healthcare practice using the Internet. □ It can also include health applications and links on mobile phones, referred to as m-health or mHealth. □ Since about 2011, the increasing recognition of the need for better cyber- security and regulation may result in the need for these specialized resources to develop safer eHealth solutions that can withstand these growing threats.

Health care app

Forms of e-Health □ Electronic health records: enabling the communication of patient data between different healthcare professionals (GPs, specialists etc.); □ ePrescribing: access to prescribing options, printing prescriptions to patients and sometimes electronic transmission of prescriptions from doctors to pharmacists □ Consumer health informatics: use of electronic resources on medical topics by healthy individuals or patients; □ Health knowledge management: e.g. in an overview of latest medical journals, best practice guidelines or epidemiological tracking (examples include physician resources such as Medscape and MDLinx);

. Forms of e-Health □ Virtual healthcare teams: consisting of healthcare professionals who collaborate and share information on patients through digital equipment (for transmural care); □ mHealth or m-Health: includes the use of mobile devices in collecting aggregate and patient level health data, providing healthcare information to practitioners, researchers, and patients, real-time monitoring of patient vitals, and direct provision of care (via mobile telemedicine); □ Medical research using Grids: powerful computing and data management capabilities to handle large amounts of heterogeneous data. □ Healthcare Information Systems: also often refer to software solutions for appointment scheduling, patient data management, work schedule management and other administrative tasks surrounding health

TELEMEDICINE □ Telemedicine is the use of telecommunication and information technologies in order to provide clinical health care at a distance. □ It helps eliminate distance barriers and can improve access to medical services that would often not be consistently available in distant rural communities. □ It is also used to save lives in critical care and emergency situations. □ Although there were distant precursors to telemedicine, it is essentially a product of 20th century telecommunication and information technologies.

. These technologies permit communications between patient and medical staff with both convenience and fidelity, as well as the transmission of medical, imaging and health informatics data from one site to another. Early forms of telemedicine achieved with telephone and radio have been supplemented with videotelephony, advanced diagnostic methods supported by distributed client/server applications, and additionally with telemedical devices to support in-home care

Benefits of Telemedicine

 Telemedicine can be beneficial to patients living in isolated communities and remote regions, who can receive care from doctors or specialists far away without the patient having to travel to visit them. Remote patient monitoring through mobile technology can reduce the need for outpatient visits and enable remote prescription verification and drug administration oversight, potentially significantly reducing the overall cost of medical care. Telemedicine can also facilitate medical education by allowing workers to observe experts in their fields and share best practices more easily Telemedicine also can eliminate the possible transmission of infectious diseases or parasites between patients and medical staff. Additionally, some patients who feel uncomfortable in a doctors office may do better remotely.

Types of Telemedicine •Emergency telemedicine •General health care delivery •Telenursing •Telepharmacy •Telerehabilitation •Teletrauma care •Telecardiology •Telepsychiatry •Teleradiology •Telepathology •Teledermatology •Teledentistry •Teleaudiology •Teleophthalmology

Telemedicine services

Medical tourism

Impact of communication on family welfare

 It is also unclear why communication occurs and what causes it. Lack of communication about family planning may be associated with misperceptions about a spouse's views on family planning, which, in turn, may inhibit mutual decision-making. In a Zambian study, the odds that women used a method covertly, rather than using no method, were about four times as high among those who were not comfortable talking to their spouse about family planning as among others; furthermore, husbands' disapproval of contraception appeared to work through spousal communication, rather than having a direct influence on covert use. Men and women who do not communicate with their spouse about family planning may not be aware that their spouse views contraceptive use positively. In settings where family planning use is a sensitive issue and overt spousal communication is uncommon, men and women perceive such exchanges differently, and their underlying motivations and these perceptions guide their negotiation strategies with their partner. Other factors that may inhibit spousal communication are household crowding, fatalism and perceived worthlessness of such discussion, dominance of other relatives (such as mothers-in-law) in reproductive decisions and embarrassment about discussing family planning. Men and women who

do not communicate with their spouse about family planning may not be aware that their spouse views contraceptive use positively. In settings where family planning use is a sensitive issue and overt spousal communication is uncommon, men and women perceive such exchanges differently, and their underlying motivations and these perceptions guide their negotiation strategies with their partner. Other factors that may inhibit spousal communication are household crowding, fatalism and perceived worthlessness of such discussion, dominance of other relatives (such as mothers-in-law) in reproductive decisions and embarrassment about discussing family planning.

Impact of mass communication on family welfare

Behaviour change interventions like mass media campaigns intended to promote family planning may influence psychosocial factors associated with spousal communication, which in turn leads to family planning use. By encouraging couples to discuss family planning issues, these perceptions indirectly lead to family planning adoption.

13,7 Let us sum up

Family is the oldest institution which has helped humankind to survive all these centuries. It is united by the ties of marriage, where the members interact and communicate with each other in their respective roles of husband and wife, mother and father, sons and daughters, etc. It provides an environment of love, belonging and security to its members, which guarantees them marital peace, fulfillment and growth. But today, the scenario is fast changing and the family is being threatened by many factors. In the current social scenario, marital relationships are under increasing strain and becoming complex and demanding more. There are growing instances of divorce, marital discord, demand for dowry, bride burning, violation of women's dignity, abandonment, neglect of intergenerational care, and so on.

13 .8 Unit end exercises

What are the objectives of family welfare programme?

Analyse the impact mass communication on family welfare

13 . 9 Answer to check your progress

To promote the adoption of small family size norm, on the basis of voluntary acceptance.

®To promote the use of spacing methods.

® To ensure adequate supply of contraceptives to all eligible couples within easy reach.

To arrange for clinical and surgical services so as to achieve the set targets

®Participation of voluntary organizations/local leaders/local self government, in family welfare programme at various levels

®Using the means of mass communication and interpersonal communication to overcome the social and cultural hindrances in adopting the programme or extensive use of public health education for family planning.

Behaviour change interventions like mass media campaigns intended to promote family planning may influence psychosocial factors associated with spousal communication, which in turn leads to family planning use. By encouraging couples to discuss family planning issues, these perceptions indirectly lead to family planning adoption.

13.10 Further Readings

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UNIT-XIV SOCIAL WORK INTERVENTION ON PROMOTING PARENTING

Structure

14.1 Introduction

Family is the oldest institution which has helped humankind to survive all these centuries. It is united by the ties of marriage, where the members interact and communicate with each other in their respective roles of husband and wife, mother and father, sons anddaughters, etc. It provides an environment of love, belonging and security to its members, which guarantees them marital peace, fulfillment and growth. But today, the scenario is fast changing and the family is being threatened by many factors. In the current social scenario, marital relationships are under increasing strain and becoming complex and demanding more. There are growing instances of divorce, marital discord, demand for dowry, bride burning, violation of women's dignity, abandonment, neglect of intergenerational care, and so on.

14.2 Objectives

After going through this unit you will be able to understand

The concept of family social work

The roles of social worker in the family

The intervention strategies and its process

The legal mechanisms to address the family problems,

II. Family - The Changing Scenario

Family, being an ancient institution, helped the sustenance of mankind in all their hardships and sufferings. Family provides the nurturing environment of love, belongingness and security which guarantees that the members will have a harmonious life, peace, fulfillment and growth. However, it does not mean that there would be no differences or provocations or quarrels about minor matters among the members of the family. Such quarrels have always existed between siblings, between parents and children or between husband and wife. But today, the situation is fast changing and the family, a very precious unit of the society, is being threatened by many extraneous factors. The marital relationship is under increasing strain. As the years roll on, it is becoming complex and more and more demanding. Present-day women are more educated and more economically independent and they contribute substantially to the workplace and the family. Yet, they are more vulnerable to violence today than before, due to various factors, particularly when violence is perpetrated by their own family members where the safety and security of the so-called home is taken away by those whom they trusted. In fact, violence against women is a global epidemic that kills, brutalizes, and harms women physically, psychologically, sexually and economically. It is one of the most persistent forms of human rights violation that denies women equality, security, dignity, self-worth and freedom.

III. Family Social Work

It is in this context that the practice of family social work becomes relevant to study and understand. Family social work aims at working with the individuals of the family who are in a strained and stressed situations. Social workers help families improve relationships and cope with difficult situations such as divorce, illness or death. They guide families through the counseling process by helping them identify problems, set goals and find suitable solutions to their troubles and tribulations. In a crisis situation, such as neglect, substance abuse or violence, they may also recommend a legal action, such as having children temporarily removed while the parents work through their difficulties.

14.3 IV. Role of Social Workers engaged in working with families

The social worker engaged in working with families is often involved in multi-tasking, taking up the appropriate role according to the need and issue at hand. Listed below are a few roles that social workers take up while working with families.

IV.Facilitator: Social workers initiate their role by simply facilitating and encouraging family members to communicate. Sometimes, families have barely spoken to each other for months by the time they seek professional help. The social worker acts as a neutral third party, helping family members share their fears, concerns or disappointments in a non-confrontational way. Probes are designed to help families to discover the underlying causes of their problems. For example, if a child is

misbehaving, it may not be because he disrespects his parents, but rather because he is troubled by the stress in his parents' marriage. A social worker would help him articulate and vent these thoughts and disturbed feelings, so the entire family could discuss and understand perfectly that these are the disturbing factors hindering their peaceful living. 4

IV.. Advisor or Guide: Social workers suggest immediate solutions, even if short-term, to help families work through problems or defuse potentially volatile situations. A social worker will often attempt to stabilize the family unit, including addressing individual members' issues, for interventions to be more effective. For example, if one family member has a serious drug or alcohol problem, the social worker may recommend undergoing or having a treatment facility before continuing with therapy. Or, if one family member has a mental illness such as depression or bipolar disorder, the social worker may advise him to visit a psychiatrist who can prescribe medications to help him manage his condition.

IV.. Mentor: Social workers take up the role of a mentor and enable venting of mounted feelings that members face frequently or occasionally which disturb their peace of mind and peaceful living. Bottling up of feelings often results in undesirable consequences and hence channelizing them properly is one way to handle feelings and thoughts for behavior to be rational and appropriate. Social workers also provide guidance and support for the members of the family for amicable living.

IV.. Advocate: Social workers act as advocates and work on taking up the cause of their clients. They represent the client in different forms and advocate the benefit and well-being of the unit. During therapeutic sessions, they also take up advocacy roles for a particular member to represent his/her viewpoint that may play a crucial role in the dynamics of the therapeutic intervention.

IV.. Catalyst: Social workers often act as catalysts in bringing about change in the family unit. The arguments placed, clarifications sought, communications held and therapies conducted all bring about a dynamic change process in the minds of the members for a decent, dignified, respected and peaceful living.

IV.. Counselor: The social worker also takes up the role of a counselor, if need arises. The goal of family counseling is to help families create a home atmosphere where family members can communicate with and support each other through times of conflict, quarrel and disagreement with one another. A conflict can have many causes, including poor relationships, substance abuse, behavioral problems, or financial or work concerns. Conflicts can arise between parents and their children. They can also occur in the marriage. The social worker counsels the members and thereby enhances their family relationship.

A social worker trained in working with families has a special skill set. The goal of a social worker is to be an objective guide for family members and help them understand their relationships and roles in the family. The family dynamics, or how family members relate to each other, will be carefully reviewed by the social worker. There is also a

focus on communication patterns and behavior patterns among family members which would be clearly studied and identified by him. Therefore, the social worker will work with the family to establish healthy patterns of communication, find appropriate ways to express frustration and anger, and set boundaries.

14.4. Intervention Strategies

Intervention is a strategy adopted by social workers to involve with individuals, families and groups to enable them to meet their needs and issues. The main purpose of interventions is to aid clients in alleviating their problems and improving their well-being and healthy living, which in turn promotes peace, tranquility and good understanding. In working with families the intervention strategies adopted by the social worker often depend on the nature of problem and its dynamic impact on the individuals of the family. Listed below are few common disputes found among Indian families.

14.5. Reasons for Common Family Disputes

Wife battering, dowry, bride burning
Violent behavior of either of the spouses
Egoistic behavior or inferiority complex
Addictions and related behavior
Abuse in all forms - sexual, verbal, physical, emotional or psychological
Needless interference from in-laws
Provocations and hurting each other by taunts, sarcasms and abuses
Indiscriminate and insensitive attitude and behavior towards spouses
Extra-marital relations by either spouse or promiscuity
Doubting the integrity/character of the spouse
V.Redressal Mechanisms

The systems and strategies available to address these issues in families are as follows.

V.. Family Courts

Family courts are a specialized type of courts entrusted with the disposal of cases concerning disputes relating to the family. In brief, these courts deal with litigation concerning marriage and divorce, maintenance, guardianship and the property of spouses. They are established under the Family Courts Act, 1984.The objective of family courts (as stated by the legislature) is to promote conciliation and secure speedy settlement of disputes relating to their marriage and family affairs.

14.6 Family Counselling Centres (FCC)

The concept of family counselling was conceptualized by the Central Social Welfare Board (CSWB) in the 1980s when there was a spate of dowry deaths. The Board spearheaded the campaign by setting up Voluntary Action Bureaus, which subsequently took the shape of Family Counselling Centres. The objective of the Family Counselling Centres is to provide preventive and rehabilitative services to women and families

who are victims of atrocities and family mal-adjustments through crisis intervention and systematic counselling.

(a) FCCs at Police Headquarters

Family Counselling Centres are being run in some Police Headquarters premises under the administrative control of the State Social Welfare Boards. These FCCs were established with the objective of providing speedy crisis intervention to those women whose cases were registered in Police Stations.

(b) FCCs in Mahila Jails

Twenty-three FCCs have been set up in Mahila Jails in Bihar, Chandigarh, Delhi, Gujarat, Karnataka, Maharashtra, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Uttar Pradesh and West Bengal.

(c) Pre-marital Counselling Centres

This new initiative is being implemented in Women Development Centres at various colleges in Delhi. They lay special emphasis on pre-marital counselling and deal with other areas of psycho-social crisis management for young women.

(d) Counselling Centres for Devdasis and Sex Workers

At present there are two FCCs working for the welfare of Devdasis and sex workers and their children, one each in Mumbai in Maharashtra and Belgaum in Karnataka. The Centres are set up with the objective of providing preventive services through awareness campaigns on STDs, AIDS and other health and legal matters and also rehabilitative measures for children of female sex workers.

VI. Family Intervention Strategies

The social workers involved in working with families engage in interventions such as emotion-focused intervention for couples, strategic intervention, intensive family preservation approaches, solution-focused brief intervention, psychotherapeutic approaches, family psycho-education and family stabilization.

.I Emotion-Focused Intervention: This intervention is basically aimed at enabling the members to let out their hatred and negative emotions and channelize them appropriately. The social worker aims at skillfully handling the emotions and revealing the true meaning hidden behind them. They are also enabled to excavate and make the other members understand the underlying need, purpose and impact of such emotional outpours. This helps family members to take stock of things and revive relationships and look forward to new ways of mending relationships and leading peaceful lives.

II Strategic Intervention: This is an approach which involves meticulous study, analysis, diagnosis and planning for the interventions to be undertaken by the social workers in working with the families. It is a systematic approach and involves meticulous preparation and scheduling according to the nature of the problem and the need.

III. Intensive Family Preservation approach: This intervention aims at ensuring the preservation of relationships of the members of the family. The frictions and divisions that have erupted among the members of the family are identified, barriers are highlighted, misunderstandings and misinterpretations are clarified and relationships are strengthened. The social worker aims at rejuvenating and preserving the family ties and strengthens the bonds between the members for a healthy relationship and peaceful living.

VI.Solution-focused brief Intervention: These interventions are used to bring about solutions to the existing problems in the family. They are very brief and focused and aim at alleviating the situation and providing the best possible remedies or solution to the issue at hand. Therefore, the social worker needs to work rapidly and cleverly for solution-focused brief intervention.

VI. Psychotherapeutic Interventions: These interventions are used in situations where the members of the family or individuals may need deep psychological help. It is a clinical therapeutic process of working with individuals to enable healing from within. It often extends over a period of time.

Family psycho-education: This involves briefing and educating family members on the situation or condition of a member of the family for supportive well-being of the individual and the family.

Skills Required for Practice:

Basic skills sets employed by social workers engaged in any helping process can be listed as follows:

Listening, Interviewing, Communicating, Motivating, Problem solving, Conflict resolution, Empathizing, Decision Making, Collateral, Contacting and Networking

Apart from the above basic skills, social workers working with families need the following skills for effective practice:

VII.1. Attending Skills: It is the act of truly focusing on the individuals who come for help. Conscious efforts need to be taken to be aware of what the client is saying or trying to communicate.

VII.2. Confronting Skills: An attempt to make a respectful invitation to the client to consider discrepancies. This is to help the client become more integrated and consistent in his behavior and in his relationships with others.

VII.3. Information Sharing Skill: Providing the client with knowledge and information that is pertinent to his problem. This is to make the client well-informed about the facts he needs to know in order to cope effectively. The information should be factual, clear and comprehensive.

VII.4. Skills in Interpreting Non-Verbal Clues: Getting the meaning of the client's non-verbal clues to his or her underlying feelings and motives. It helps the social worker to get additional information about the client's thoughts and feelings and project warmth and sensitivity towards the clients. The social worker can watch for inconsistencies during this process.

VII. Empathetic Listening Skills: The basic listening skills include observation, the use of open and closed questions, and the use of encouraging, paraphrasing, summarization and reflection of the client's feelings. It includes the process of tuning in carefully to the client's message and responding accurately to the meaning behind the message. It involves entering the inner world of the client. The social worker conveys understanding, concern and empathy, avoids interpretation, and suspends judgment.

14.7 Let us Sum up

- For the past few decades, sweeping changes in male-female relations, sex norms, birth rates and divorce rates have been occurring at an accelerating rate among all segments of the population.
- People today become sexually active early, marry late, have fewer children and divorce more frequently than in the past. Non-traditional alternatives to marriage such as live-in relationships, single mother or one-parent families by choice have emerged along with a variety of other experimental arrangements.
- It is clear that the present trend is alarming, where traditional family norms have become blurred and new guidelines for courtship and marriage have not yet been clarified.
- In this time of ambivalence and flux, social case workers face the formidable challenge of ensuring that they will be relevant and effective in their practice in helping troubled families cope with the old and new dilemmas present in family life today.
- Social case workers help families with strained relationships and marital discord and provide the warring factions of the family with a platform to discuss their problems and to find solutions.
- Social case workers play the role of a facilitator, guide or adviser, mentor, advocate, counselor, and catalyst in the process of problem solving.
- There are some common problems found among the Indian families as well as some socio-legal mechanisms to address these problems.

The social workers involved in working with the families engage themselves in adopting interventions such as emotion-focused intervention for couples, strategic intervention, intensive family preservation approaches, solution-focused brief intervention, psychotherapeutic approaches, family psycho-education, and family stabilization.

v Social case workers employ the basic skills such as listening, interviewing, communicating, motivating, problem solving, empathizing, conflict resolution, decision making, collateral contacting, and networking in their interventions.

14.8 Unit end exercises

Examine the roles of family social worker

What do you mean by psycho therapeutic intervention?

14 9 Answer to check your progress

Role of Social Workers engaged in working with families

The social worker engaged in working with families is often involved in multi-tasking, taking up the appropriate role according to the need and issue at hand. Listed below are a few roles that social workers take up while working with families.

IV.1. Facilitator: Social workers initiate their role by simply facilitating and encouraging family members to communicate. Sometimes, families have barely spoken to each other for months by the time they seek professional help. The social worker acts as a neutral third party, helping family members share their fears, concerns or disappointments in a non-confrontational way. Probes are designed to help families to discover the underlying causes of their problems. For example, if a child is misbehaving, it may not be because he disrespects his parents, but rather because he is troubled by the stress in his parents' marriage. A social worker would help him articulate and vent these thoughts and disturbed feelings, so the entire family could discuss and understand perfectly that these are the disturbing factors hindering their peaceful living.

IV.2. Advisor or Guide: Social workers suggest immediate solutions, even if short-term, to help families work through problems or defuse potentially volatile situations. A social worker will often attempt to stabilize the family unit, including addressing individual members' issues, for interventions to be more effective. For example, if one family member has a serious drug or alcohol problem, the social worker may recommend undergoing or having a treatment facility before continuing with therapy. Or, if one family member has a mental illness such as depression or bipolar disorder, the social worker may advise him to visit a psychiatrist who can prescribe medications to help him manage his condition.

IV.3. Mentor: Social workers take up the role of a mentor and enable venting of mounted feelings that members face frequently or occasionally which disturb their peace of mind and peaceful living. Bottling up of feelings often results in undesirable consequences and hence channelizing them properly is one way to handle feelings and thoughts for behavior to be rational and appropriate. Social workers also provide guidance and support for the members of the family for amicable living.

IV.4. Advocate: Social workers act as advocates and work on taking up the cause of their clients. They represent the client in different forms and advocate the benefit and well-being of the unit. During therapeutic sessions, they also take up advocacy roles for a particular member to represent his/her viewpoint that may play a crucial role in the dynamics of the therapeutic intervention.

IV.5. Catalyst: Social workers often act as catalysts in bringing about change in the family unit. The arguments placed, clarifications sought, communications held and therapies conducted all bring about a dynamic change process in the minds of the members for a decent, dignified, respected and peaceful living.

IV.6. Counselor: The social worker also takes up the role of a counselor, if need arises. The goal of family counseling is to help families create a home atmosphere where family members can communicate with and support each other through times of conflict, quarrel and disagreement with one another. A conflict can have many causes, including poor relationships, substance abuse, behavioral problems, or financial or work concerns. Conflicts can arise between parents and their children. They can also occur in the marriage. The social worker counsels the members and thereby enhances their family relationship.

A social worker trained in working with families has a special skill set. The goal of a social worker is to be an objective guide for family members and help them understand their relationships and roles in the family. The family dynamics, or how family members relate to each other, will be carefully reviewed by the social worker. There is also a focus on communication patterns and behavior patterns among family members which would be clearly studied and identified by him. Therefore, the social worker will work with the family to establish healthy patterns of communication, find appropriate ways to express frustration and anger, and set boundaries.
Psychotherapeutic Interventions: These interventions are used in situations where the members of the family or individuals may need deep psychological help. It is a clinical therapeutic process of working with individuals to enable healing from within. It often extends over a period of time.

Family psycho-education: This involves briefing and educating family members on the situation or condition of a member of the family for supportive well-being of the individual and the family.

14 10 Further Readings.

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